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ORIGINAL COMMUNICATIONS.

ARTICLE I.

FATAL PELVIC HEMORRHAGE FOLLOWING THE USE OF THE ASPIRATOR NEEDLE.

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It is generally thought that the puncture made by the aspirating needle, whether for diagnostic or therapeutic purposes, is free from danger; and it is employed by most surgeons, without hesitation, both to determine the nature of doubtful swellings and to evacuate deep-seated abscesses, cystic collections, etc. The instrument has even been thrust into an aneurismal sac containing fluid blood without untoward consequences. It is true that death has followed its use in some cases in which it was employed to remove the fluid from ovarian cystomata, and these are the only ones, so far as I am aware, in which a fatal result has been attributed to it.

The following case shows, however, that the instrument is not so entirely safe as is usually supposed, and that even a fatal hemorrhage may follow its employment.

On August 16, I was called to see Mrs. L. E., in consultation, and received the following history: She was about 25 years of age, and had one living child three years old. During the summer of 1883 she had a premature labor, followed by septic fever, from which she perfectly recovered.

In the afternoon of August 8, after suppression of menstruation for three months, she was attacked with severe flooding, fainting, and labor-like pains. Dr. H., the medical attendant, was summoned, and found the os uteri dilated to the size of a quarter of a dollar. Later, in the evening, the hemorrhage and pains continuing, the vagina was tamponed. At midnight the tampon was removed, and the fetus escaped, leaving the placenta partially protruding from the os uteri. A portion of it was removed by traction, and as much as possible of the remainder was scraped away by means of a dull wire curette. August 10, the patient had a severe chill, followed by headache, fever, and uterine pain. The curette was again used, with the result of bringing away a few shreddy pieces, and the uterus was then injected with Churchill's solution of iodine. From that time onward there was a daily chill, with strongly-marked febrile symptoms, and continuous pelvic pain and tenderness.

On examination, I found general pelvic fullness with heat and great tenderness, especially in the right broad ligament. The uterus was bulky and slightly movable; the os sufficiently open to admit the end of the fingers. Issuing from the latter was an offensive, thin, bloody discharge. She was given morphine, potassic bromide, quinia, etc., and had intra-uterine injections of carbolized water. After two or three days the discharge lost its offensive character, but the inflammatory and febrile manifestations continued.

At this time, a brother of the patient, an accomplished phy-

sician, arrived, and took personal charge of her, so that every detail of treatment was assiduously enforced.

On the evening of the 22d I detected a soft spot in the right ligament, about one inch from the uterus. It was decided to introduce the aspirator needle at the place with the hope of finding pus. This was accordingly done under antiseptic precautions. There came into the receiving bottle about a dram and-a-half of serum, tinged with a little blood. Not feeling satisfied, I withdrew the needle, and re-introduced it, directing its point rather more toward the uterus, with the result of bringing away two or three drams of pure blood. The needle was then withdrawn, and the vagina syringed with hot carbolized water.

In a few moments the nurse informed me that there was bleeding from the vagina, and on returning to the patient, I found that there had indeed been a loss of two or three ounces of blood. I at once proceeded to tampon the vagina, and the hemorrhage appeared to be checked. As the patient was being lifted to a proper position in bed, after the operation, I observed a peculiar ashy hue overspreading her face, which I attributed to a partial fainting from the raising of her head.

Having an important engagement in the country, and barely time to catch the train, I was obliged, very reluctantly, to leave the patient at this critical juncture, in charge of her brother.

The latter informed me by letter, subsequently, that the blood, bright and arterial in character, to the extent of *two quarts*, continued to flow notwithstanding the presence of the tampon, which he tried to make firm, and that death ensued in less than an hour after the operation.

ARTICLE II.

INTRODUCTORY LECTURE BEFORE THE CLASSES OF THE CHICAGO MEDICAL COLLEGE, SEPT. 23, 1884. *By* J. E. OWENS, M. D., *Professor of Operative Surgery and Surgical Anatomy, Chicago Medical College, Medical Department Northwestern University, Chicago.*

GENTLEMEN:—As the representative of the faculty of the Chicago Medical College, it becomes my pleasing duty, this evening, when we inaugurate the opening of another college year, to offer a cordial welcome to every student in this amphitheater,—those who are here for the first time; those who have advanced to the middle year, and those who have the gratification of counting the present session as the last of their collegiate curriculum. Since the close of last session several changes have been made in the faculty. The chair of physiology, left vacant by the resignation of Professor Gradle, has been filled by the appointment of Dr. R. W. Bishop. To Dr. Danforth, one of the professors of clinical medicine, has been assigned the duty of teaching you the pathology of renal diseases. Prof. Danforth has for many years not only made renal diseases a special study, but he has taught this branch in the more important medical colleges and hospitals in this city, and I congratulate you that you can avail yourselves of the opportunity of profiting by his teachings. Dr. W. E. Casselberry, whose appointment as lecturer last year was made too late to appear in the announcement for 1883–4, has, since the close of the last session, been elected by the trustees full professor of materia medica and therapeutics. Dr. W. W. Jaggard has been made adjunct professor of obstetrics. To Dr. Frank Billings' duties as demonstrator of anatomy, the faculty has added those pertaining to the office of lecturer on physical

diagnosis. Dr. J. S. Marshall, whose lectures last winter were so acceptable, and who at that time had not received a formal appointment, has been elected lecturer on oral and dental diseases.

Dr. N. S. Davis, Jr., appears as lecturer on general pathology and pathological anatomy, working in your interests, under the direction of Prof. Christian Fenger, who has full charge of this department. Dr. Frank S. Johnson has received the appointment of lecturer on histology, acting under the direction of Dr. Lester Curtis, the professor of histology and practical microscopy.

These changes in the curriculum, together with the new appointments, have been made with a great deal of circumspection on the part of the faculty, with the view of adding to its efficiency and facilitating its work. You have confided to us a great trust, and it is doubtless a matter of extreme concern to you to know something of the principles which will guide us, and the methods that will aid us in preparing you for your future career.

The college which you have selected, gentlemen, has been in existence a quarter of a century, and this was celebrated last spring in a fitting manner.

The functions of a medical school are to train students to become medical practitioners, and to pass certain examinations which are the legal tests of their fitness to practice. The choice of the medical school should be a matter of great importance to you. Many elements are to be considered, the prestige of the school, the system of teaching, the moral influence, example and personal qualities of its teachers, the character and standing of its alumni. I can honestly assure you, gentlemen, that you, who have cast your lot with the Chicago Medical College, have made no mistake. You have

entered a college that has the honor to have made the very first earnest, honest and successful effort for reform in medical teaching, in this country, by refusing to adopt the methods of education then and now in operation in almost all the medical colleges in the United States—methods which the profession and medical societies have for the most part vainly protested against for many years. By the defective method referred to, you, who find yourselves for the first time in a medical college, at the beginning of your studies, would be expected not only to listen to, but to understand the same lectures delivered to the most advanced students, namely, those who are applicants for the degree of Doctor of Medicine, in the last year of study. You can well imagine the difficulties you would encounter, and may also imagine how defective must be such medical training. In the Chicago Medical College, the system of instruction, as most of you know, comprises three consecutive annual courses of lectures. During the first year the student is instructed in anatomy, physiology, histology, practical microscopy and general chemistry, the very foundation of his medical education.

The information thus gained, in the first year, is applied in the second, and enables him to study intelligently, and to the very best advantage, the branches of study embraced in the second year. In a like manner, the members of the senior class are most thoroughly fitted to comprehend the subjects presented to them in the third year, which embrace the theory and practice of medicine, surgery, gynecology, diseases of children, ophthalmology, otology, nervous and mental diseases and medical jurisprudence.

In my opinion, the system enforced by this faculty is most admirable, and bear in mind, gentlemen, that to this college belongs the honor of priority in this matter in this country, and

not only that, it is due this institution to announce that no other system than the one mentioned has ever been in force in this school. The student is left no choice of an easier but less efficient method. He is obliged to conform to these requirements of the Chicago Medical College or go to some other school. It has ever striven for the broadest and most liberal culture of its students, and to this end it has worked successfully for so long a period, never at any time having made any sacrifice of principles in order to obtain large classes. It has never held out such inducements as low fees, short terms, low order of attainments, but it has always worked to secure the best men. Its graduates leave the college as well educated for their life-work as those of any other college in the United States. And you, gentlemen, as so many have done before you, if you perform your part, shall be well prepared for holding places of honor in society and the profession.

This college has done *a great public service* by implanting amongst our people well-educated and worthy physicians and surgeons. It has done another good thing, namely, it has exerted a wholesome influence in *establishing* the *graded course* in *a few* of the medical schools of this country. Dr. Wm. A. Hammond, of New York city, a gentleman of world-wide reputation, in an article on medical education made use of the following language:

"Thus far but few medical colleges have done their full duty in the matter of arranging their courses of lectures so as to give the best possible advantages to the student.

"So far as I am aware," said he, "the only ones that have established graded courses are Harvard Medical School, in Boston, the University of Pennsylvania, in Philadelphia, the Chicago Medical College, in Chicago, the medical department of Syracuse University, in Syracuse, and the medical department of Yale College, in New Haven."

Gentlemen, I will suggest one change in this, namely, that inasmuch as the Chicago Medical College was the first to make this radical change in medical education, its name should stand at the head of this honorable list. The experience that you will gain here is partly derived from the system of instruction as between teacher and pupil. Some, in decrying lectures, which compose the greater part of the course, have advanced the idea that all can be acquired from books that is obtained in the class-room, and that the facts presented in lectures pass along too rapidly to produce a lasting impression. Such arguments are plausible, but unsound. Your teacher, in order to do the best by you, has gone over and analyzed a great mass of material for a single lecture. He has excluded all extraneous matter and controverted questions, epitomized as much as possible, and thrown in observations and discoveries not elsewhere to be found. It would require a vast extent of reading to cover anything like the ground occupied by a single lecture. The transitory impression depends upon inattention and want of skill in note-taking. The fault of most beginners is to attempt to note down too much. Endeavor to catch the words that are the key to the sentence, and write these down in the order in which they happen to fall. Take then the very first opportunity, while the subject is still fresh in your minds, to work them into a consistent whole. You thus apply your critical faculties to your notes, and the attention which this requires makes this knowledge your own. Let me advise you to study with a view to the acquisition of knowledge, and not merely to the passing of examinations. In addition to the daily class examinations or quizzes, this year the Faculty will still further advance the interests of the student by including recitations in the system of instruction. The daily quizzes are designed to gauge the amount of your knowledge, to correct

its deficiencies, to make it thorough and accurate, and thus to ensure you safer progress in the study of medicine. By recitations we hope to *enforce* a closer individual application to the different branches, and to enable you the better to unravel the more difficult subjects. You must remember, gentlemen, that, when you have completed your studies in this institution, you will pass out into an immense professional field armed with the implements for your work. There you must compete with those who have gone before you. These are very numerous. I am told that in every community there are three or four doctors where one is really needed. Those succeed who are the best qualified. You can readily see, then, why this college gives so much thought to methods of instruction. If it is true that Canada has one physician for every 1,193 inhabitants, Austria one for every 2,500, Germany one for every 3,000, Great Britain one for every 1652, France one for every 1814, and the United States one, both regulars and irregulars, for every 600, with you it is a plain case of the "survival of the fittest."* Those who are to flourish must start well, and their success depends upon great skill, great tact and great industry. Let me remind you that you cannot begin too early to familiarize yourselves with the objects presented to you in the lecture room and at the clinics. At the hospitals you will, from the first, be required to see, listen, handle, smell, and, if need be, taste. The more you train the senses, the more delicate and discriminating they become.

The amount of information gained in this way cannot be overestimated, and it will continue to increase through life. In the hospitals, as well as in the college, you will become conversant with the various instruments of precision, the stethoscope, the ophthalmoscope, the laryngoscope, the sphygmo-

*The Physician Himself.

graph, the thermometer, the microscope and others. Here, gentlemen, you must learn to be gentle, circumspect and forbearing, for much of your work now and hereafter must be done in the midst of those who suffer, those with painfully exalted sensibilities, those whose minds and bodies are wearing from want of rest, and exhausted from disease. Let me urge you to observe every detail in the clinics. It is a common fault with students to pay no attention to the "little things." Too often, only the tissues as they seem to part at the touch of the knife, the flowing blood, the grand result, claim their attention. There is so much to learn before you come to the operation. Much may be learned by studying the expression of the patient, his movements, his manner, the condition of the internal organs, the bearing which organic diseases and functional disturbances have upon the results of operations. Early study to simplify complications. This is one of the essentials of success. If an operation is about to be performed, note the preparations, the position of the patient, the number of necessary assistants, their arrangement. Get a clear idea of the essential instruments employed in the individual operations, and also those—a kind of reserve corps — that *may* become necessary in possible emergencies. Do not consider the sponges, ligatures, basins, and other receptacles, beneath your notice. In this way you will learn to comprehend the certainties, the probabilities and the possibilities of every operation, and find it an easy matter to make such an arrangement and to take such precautions as will, when you become engaged in practice, bring you always full-handed and admirably prepared for your work. Disease is so expressive that a close observer, and one who is well trained, may make an unerring diagnosis at a glance; in another instance, a few sounds fix exactly the condition of the

diseased organ; in another, smell and taste become invaluable; in still others, touch and manipulation are aids that cannot be overestimated.

Indeed, I cannot conceive, after a student enters the lecture-room, or approaches the bed-side, that he can spare a moment from the special work before him. In the lecture-room, before the lecture begins, you may often find a few moments that can be well spent in reviewing, correcting, or rearranging the notes of the previous lecture. Remember that medicine is an honorable calling, and if you are not resolved to uphold that honor, you have mistaken your mission. Honor and duty require you to do right because it is *right*, and not for policy's sake. The dangers and temptations of student life in Chicago are many and varied. Next to those of high principles, that it is hoped all have instilled into them in earlier life, that earnest resolve to fill in this world the place of a man—the ever persevering application to the work before you, in mastering the many details and principles of the medical sciences, is the best safeguard. You are about to enter a society differing in many respects from any amongst which you have hitherto lived. From the very moment that you enter these halls you become in a certain sense members of the medical profession. You will be brought in daily contact with your professors, and other members of the fraternity. You will shortly become more or less intimately acquainted with each other. Similar aspirations and prospects will draw you together, and the friendships thus early formed will doubtless be amongst the sincerest and most lasting of your life.

It occurs to me that you must have an exceedingly inadequate conception of the profession of your choice—a profession whose members must cultivate science for its own sake, and must apply this science to the wants of the com-

munity, in encouraging the well being of mankind, by promoting the growth of a robust and healthy population, by searching out the causes of disease, and diminishing the rate of mortality. Why you have chosen this very liberal calling may not be clear to all of you. Certainly you have been influenced to take this step for a variety of reasons. Perhaps I can do you a service in detailing the salient points in the life of one most worthy of emulation. This is the more agreeable to me, inasmuch as the life of such a one is a scrap of the history of surgery.

Indeed, gentlemen, the very best wish I can entertain for you is that each one of you may become a Nélaton. Note his happy qualities.

*"Love of work, sustained by a firm will, a precocious maturity, a sure judgment, much "finesse," united to a rare good sense, and that gift of nature, desirable among all, and which one cannot acquire—a personal charm. Add to these, propitious circumstances, rendered more favorable still by his prudence and his moderation."

From the very beginning of his career, one could see him advancing with a steady step, and, without resting or stopping a moment, attain successively to every degree of success, appearing at last at the summit of French contemporaneous surgery. He acquired one of those reputations of which neither time nor distance renders us unmindful and which our fathers had never known.

Auguste Nélaton was born in Paris, June 17, 1807. He was the second son of Alexandre François Nélaton, upholsterer, and of Marie Louise Lauriau, daughter of a merchant of St. Denis. Soon after the birth of his son, the elder Nélaton entered the service of the army. In 1811, at the epoch of the

*J. Bédard.

Russian campaign, he left, at Saint Omer, where he was then residing, his wife and children, whom he was not to see again. At first the news from him came regularly, then more rarely, and finally ceased entirely. The resources of the family became finally exhausted. Then came days of struggle. But Mme. Nélaton was not one of those who remained inactive. She did needle-work, and, thanks to her energy and skill, the humble home was kept supplied. Happy the sons of those courageous women, whose good example engrafted in the heart of the child, upon the love of mother, a sentiment of duty and respect for work.

When Mme. Nélaton returned to Paris, in 1821, the times had improved. The son was placed in school. He gained there all those little distinctions so flattering to youth and indicative of success. It was there that he made the acquaintance of a tutor, who became finally a distinguished physician, M. Requin, then a student of medicine, and whose counsels probably decided the future of Nélaton.

In 1828, having finished his literary studies, he began the study of medicine. "Claude Bourdelin," says Fontenelle, in his Éloges, "was born in good circumstances, and hence he could live comfortably, although all the world enjoyed good health." A fine Greek scholar for his time, the physician of the Duchess of Burgundy was, however, more occupied in translating Pindar than in taking care of the sick. If there are a favored few who can live without work, there are others, less favored, who must work in order to live. Young Nélaton had a smattering of Greek, but, nevertheless, the recollection of his youth had left profitable lessons, and he appreciated the value of time.

Two years had hardly passed when he was made externe in the service of Dupuytren. Soon after, having come out suc-

cessfully in the concors for interne, he had the good fortune to meet a master whose good sense was only equaled by his modesty, M. Baffos, who, convinced of the value of the experience which one acquires by hard work, extended to his pupils many clinical favors. Our new interne took care not to lose any opportunity that presented itself.

The asylum to which he was attached, being devoted to the care of sick children, offered a vast field for research. It was there that Nélaton gathered the materials for his inaugural thesis. Having collected his data from nature, his work on Tubercle of Bone, well deserved a place in surgical literature. For the first time that frightful evil was searched for in all parts of the osseous system. At that time Dupuytren, regarded for a long time as the greatest surgeon, possessed a prestige without an equal. The ambition of youth was to approach him, to become attached to him, one felt proud to be counted amongst his disciples, and this favor was much sought after. Temporarily absent from the Hotel Dieu, Nélaton did not neglect to follow the lessons of the master, and he longed for the moment when he could enter again the services of this great surgeon. He returned in the early part of 1835, but Dupuytren was no longer there. For some time sickness kept him away. He never reappeared, and died a month later, February 8, at the age of fifty-eight years. In the midst of the élite of the French schools, merit was counted at its just value. M. Nélaton was becoming known, he was attentively listened to, his knowledge valued, his approbation sought after. He had no haughty manners, the usual companion of presumptuous inexperience, but a modest demeanor based upon firmness and assurance.

"In the ward of the Hotel Dieu," said M. Diday, in charming pages, dictated by the recollection of early friendships, in

the midst of future great men who were gradually getting a foothold in that legendary entre-sol, the entrance of Nélaton always created a sensation. One felt attracted towards this gentle young man by a peculiar charm mingled with respect." The old Hotel Dieu of which M. Diday speaks, with its dark wards, haunted by work and hope, no longer exists except in memory; but in the new sanctuary, to-day as formerly, a courageous and proud youth is always on the alert for an opening through which he may pass on to eminence. 1839 was a fortunate year. At the close of a double concours, he was named agrégé of the faculty of medicine and surgery of the School of Paris. He was then thirty-two years old. At that age success has an inexpressible charm, either because one feels it in a more lively manner, or because the imagination embellishes the present by the promise of a still more brilliant future. "The first lights of Aurora are not more dazzling than the first rays of glory."

The reputation of Nélaton was commencing to spread abroad, he could, however, still command his time. There was a period of about ten years, perhaps the most fruitful of his successful career, during which, thanks to an existence wisely regulated, he lived in continual association with science, devoted many hours to work, learned a great deal and prepared much for the future. At that time he conceived the idea of connecting his name with a great work, and undertook the publication of "Treatise on Surgical Pathology," of which he was only able to compose the first two volumes. In 1850 he entered the concours for the Chair of Operative Surgery, which gave M. Malgaigne to the faculty. The following year the decisive contest took place, at the termination of which he came into possession of the Chair of Clinical Surgery, upon which his teachings threw so much luster.

French surgery emerged from obscurity with Guy de Chauliac, about 1360. For nearly 200 years it was a profession forsaken by literary men, when there appeared the great Ambroise Paré. It was a long time after that, when there arose two men of first order, namely J. L. Petit and Desault. Between them they occupied a part of the eighteenth century, as Dupuytren filled the beginning of this. Coming after Dubois and Boyer, heir to the traditions of French art, brought up at the school of Hunter and Bichat, an experimenter at a time when physiology had hardly ceased to be speculative, admirably gifted for teaching, Dupuytren, in a few years, had become the first surgeon of his time. In the new impulse which his skill gave to surgery, the operative technique always held the first place. Equally sought after by the operator and the one operated upon, rapidity in execution became a necessity.

But this manual dexterity, greatly esteemed and very praiseworthy, especially at a time when the physician had not gained a complete mastery over pain, was in reality but a secondary quality. Surgery only became a veritable science the day that it emerged from the shop of the adroit barbers, and thus overstepped the limits of its etymology. It has long since reached a much higher plane. The operation itself is not the greatest of the services which surgery is able to render. The operative domain is but a bondage which science from day to day renders lighter and more endurable, seeking to free itself from a bloody tribute by becoming more and more the physician and less and less the surgeon. This should be the aim of every true surgeon.

Contemporary surgery crystallized this truth in a single word, Conservatism! Such is the motto of progress. Is it not a splendid eulogy of French surgery to say that it has contributed largely to this new evolution?

It is well known, Nélaton has said it himself, that the work on surgery which bears his name, and the publication of which he commenced, was continued and completed by his pupils.

In order to know him well, to judge him as he should be judged, we must follow him in another role. Early his taste carried him towards the practical side of science. Rare qualities had revealed themselves in his clinical conferences at St. Louis, and it was easy to foresee what he would one day become. When the doors of the faculty opened before him, he was forty-four years old. He was no longer a young man; still he was not of that age when, having nothing more to work for, the professor foresees repose in teaching. The end was not yet attained. He was still ambitious.

Let us advance with him. Nélaton was a thorough professor. Not that he had that wonderful faculty of expressing himself like most men of showy minds, who seduce rather than persuade, but it was his easy-flowing, unstudied language, slow and measured, that impressed his hearers. He knew so well how to say what was necessary, and he spoke to the point. Clearness, precision, exactitude, were his predominant qualities. "That which is not clear is not French," said Voltaire, and Nélaton was a true Frenchman.

Ordinarily those who have to be taught know nothing or very little, and the professor, in order to make himself understood, must first raise his audience to his level. He excelled in this. There is always a word better than any other that expresses a thought. The happy words came of themselves to his lucid mind, and, without seeking for rhetorical effect, he often succeeded in it. His clinical teaching was the constant object of his preoccupation. Frequently he was seen reappearing in the middle of the day, in the wards assigned him, in order to examine again, at his leisure, the patient that

was to be the subject of the next day's lecture. Endowed with great knowledge, he connected the observations of the moment with analogous facts which he had witnessed, or of which he had read in the annals of science. Proceeding alternately by comparison and by induction, he at one time devoted himself to sounding the origin of the disease, at another time its symptomatic expression engaged his attention. He was thus enabled to get at its connections and affiliations, and soon became master of the problem, throwing light upon obscure points and removing all obstacles.

Such a lecture had for his audience the charm of improvisation, when it was really the fruit of long meditation and arduous research. From the beginning he had voluntarily adhered to this inflexible method. Such is the secret of his diagnostic powers which have so often astonished his audiences.

Let us note in his life that which he has stamped with progress. The very best work in reparative surgery is comparatively very imperfect. Inspired by the fine studies of one of his colleagues, he, in an operation for restoring a nose which lacked the osseous frame-work, included in his flaps the periosteum from the neighboring part, in order to give the newly made organ the desirable solidity. In closing an abnormal orifice, or reforming a canal where only a gutter remained, instead of borrowing a pediculated flap from the neighborhood exposed to the dangers of mortification, he cut a kind of bridge, attached on each side to the living parts by two bands, and the enclosing piece was put in place simply by sliding. His operations performed with a view to remedying the unfortunate contraction of a cicatrix, and his studies in secondary hemorrhage and many other subjects which we cannot now touch upon, attracted much attention. In the application of galvanic electricity to surgery, the thermic or galvanic cautery is most

frequently employed. By the aid of a current of proper intensity enclosed in a handle, a piece of platinum in the shape of a knife is made to divide the tissues slowly and without hemorrhage. age. But the chemical action of the current can also be utilized. The needles, which represent the poles of the electrical apparatus, being inserted in the living parts, the interposed tissue closes the current. The passage of electricity determines in the parts traversed the phenomenon of electrolysis—that is to say, a separation of elements, a slow disorganization, or a kind of separating necrosis.

In 1864 Nélaton explained to the Society of Surgery the advantages of the then new method which may be called Italian. In a few sittings, he obtained a cure without pain or bloodshed of one of those deeply placed cervical tumors, which the knife could only reach at the price of dangerous mutilations.

He made the operation of opening the intestine for occlusion more certain in its results by first fixing the intestine to the lips of the abdominal wound, and opening it only after adhesion of parts had taken place.

In the operation for stone, he proposed, in order to avoid lesion of the bulb in endeavoring to secure a roomy opening, to carry the incision as far backwards as possible. He pointed out the danger of meddling with certain lymphatic tumors of the groin. He insisted upon the necessity of proceeding to the complete extirpation of cysts which develop beneath the hyoid bone, in order to guard againt their return. He showed that pulsatile tumors of bone are not aneurisms but simple varieties of osteo-sarcoma.

Instead of abandoning pelvic aneurisms, for which neither opening the sac nor compression of the vessel is possible, coagulating injections appeared to him indicated.

He called attention to a singular malady in which the foot

ulcerates, wears out, so to speak, from without inward, on every part that touches the ground, including the bone. We are more dependent on the time in which we live than we think. We belong to it by education, by our ideas, by our emotions, by our friendships, by our recollections, and we could not be justly judged except through our own surroundings. Following that rugged path where incessant labor and painful trials are the price of success,—trained at the school of liberal teaching then flourishing,—in the midst of valorous men who, by example, cherished his hopes and sustained him in his work, he was one of those young men who, having emerged from the amphitheater a perfect anatomist, easily became a skillful surgeon.

A little later, Dupuytren shared the fruits of eminence with Nélaton, just as formerly Desault had shared them with Dupuytren. Both accomplished professors and clinicians, they made their reputations more by speech than by pen, and powerfully impressed the youth of their time with a seductive teaching. Endowed with a penetrating sight, with inventive minds, they showed themselves equally able in putting into practice all that could assist the supreme aim of their art, namely, Cure.

The one was gentle, open, accessible to all. The other was reserved, studied, impenetrable. There are men who seem born to rule others; they recognize no master, want no equals, and suffer themselves to divide with no one.

Nélaton, more modest and generous, associated more than once with his young confreres in the merit of work. Having shared in the labor, he wished them to participate in the honor. He was well in advance of the olden times. Great changes which he had witnessed, and in which he had played a part, had taken place. To the surgery of yesterday, absorbed in

perfecting operative procedures, had succeeded a surgery less impatient.

Our own country had just given the world a new wonder, which can only be compared to vaccination, namely, the momentary insensibility and happy forgetfulness which result from the inhalation of ether. Simpson, of Edinburgh, a few months later found in the vapors of chloroform a still more rapid but more dangerous anæsthetic. To suppress pain, to calm the fright which an operation excites, to avoid the painful anguish and shock which result from these influences, are some of the benefits of the, then, new discovery. The patients find in it other advantages, less apparent, perhaps, but really no less precious.

The surgeon, having no longer the spectacle of suffering before him, of which even the most hardened soul is not totally unmindful,—having now no longer the need of subduing the patient or controlling himself, he sets to work with a freer mind and a surer hand. No longer preoccupying himself with a celerity containing sometimes an element of danger, he can proceed with a prudent slowness, with more time to think of results, which should be, in fact, the predominant thought of the surgeon. Being the last resource, compelled by necessity, the operation is a new peril, to which we are only permitted to expose our patients on condition that we concentrate all our energies to secure a successful issue. An impalpable dust, suspended in the air, surrounds us. Rare at the tops of mountains and in the solitudes of the fields, organic molecules are disseminated in the air of cities and accumulate in the interior of our dwellings. The greatest accidents are to be feared amongst the wounded in crowded habitations, insufficiently ventilated. Protected on all sides by an epithelial cuirass, within as well as without, in the way of constant renewal, a

healthy man offers to these invisible enemies a barrier for the most part inaccessible. A wound is an open frontier which must be defended, so much the more since the open door offers a double danger, namely, the ingress of the invisible enemy or the exit of our vital forces. From his début in hospital practice, Nélaton had been wrestling with those frightful complications of wounds whose mild forms are inflammation of the lymphatics, erysipelas, phlegmon, and whose highest expression is the deadly pyæmia. He had seen surgery, for a long time disarmed and submissive, finally enter into combat with this horrible plague.

Avoid as much as possible, said he, the open wound, and when it is necessary to have recourse to the knife, prevent in every way the introduction of the subtle poison by establishing quickly a protective barrier, and if, in spite of all, the septic agent appears at the surface of the wounds, try to expel it, or destroy it. The value of the means proposed is best seen when put in practice.

He was one of the first to use alcohol as a dressing for wounds, and personally interested himself in making known its value.

It is true, that, at a remote period when surgeons boasted of the most varied compositions, balms and mixtures of all kinds, to say nothing of the charms of the supernatural of Paracelsus, a few surgeons, bolder than others, treated wounds with hot water. But it is not progress to follow at random a path whose end we miss and which we lose as easily as we enter it. All the attempts of which we speak would be vain did not hygiene of the sick-room follow at the same time. Nélaton often insisted, in his teachings, upon the tried principles of prophylactic surgery. He taught that there are no "*small things*" in the art of curing, and that every detail has its importance,

since the life of the patient may be endangered by a lotion badly made, or by an unclean element of the dressing.

To operate in good atmospheric conditions, to aim at rapid cicatrization—in a word, try to obtain immediate union, is the ideal of all reflective minds.

He took an active part in the surgical society, especially at the time of his début. He appeared but once or twice at the Academy. In 1856, on the occasion of his first appearance there, he took part in a hot discussion upon one of the gravest operations that can be performed upon woman, and of which the most independent, and, at the same time, the most incisive speaker, said, "That it would surely put the patient beyond the possibility of a relapse." This operation, that of ovariotomy, conflicted too violently with the existing ideas of that time, relative to the gravity of penetrating the peritoneal cavity, to be accepted without resistance. Ovariotomy was then looked upon as a kind of criminal procedure. When it came to France for the first time, from England, about 1840, it had already been practiced in our own country for more than thirty years. The first attempts made in France had not been fortunate. In England the most eminent surgeons condemned it. It was the repeated successes of Wells and Baker Brown that attracted anew attention to it.

November, 1861, wishing to see for himself, he went to England. Five operations made under his eyes by Baker Brown removed all his prejudices. He returned convinced. In his clinical lectures of the following year, he made an appeal in its behalf to his young colleagues. He, the prudent surgeon, par excellence, strove to dissipate exaggerated fears, and asked them to judge only after giving the operation a fair trial. Soon after, he detailed to the Academy the operation done by his esteemed confrère, M. Demarquay. It is not easily for-

gotten how much he insisted that they should not be discouraged by that first failure. Almost at the same time a young professor, Koeberlé, then his compatriot, successfully performed in Strasbourg a series of brilliant ovariotomies, which exerted a powerful influence in legitimizing the operation. It can be said that to Nélaton is due the honor of having acclimated this new American importation. If the operation, he thought, was to be dreaded, the disease was still more to be dreaded. Inevitable death is the fate of its victims. If the operation has its perils, it has also many chances of a happy result.

Said Nélaton, in one of his lectures, "I cannot too strongly urge you to lay aside sentimental prejudices." In the face of a disease, it is necessary, when the critical time has arrived, to put in parallel the gravity of the evil and the resources of our art. And, further on, he added this recommendation: "It is of great consequence that surgeons in high places should give their moral support to those of our colleagues who are willing to assume the responsibility of such operations."

The following year an unforseen event made the name of Nélaton renowned. August 29, 1862, at Aspromonte, Garibaldi, who was fighting for the independence and unity of his country, being in the front of the volunteer lines, was struck by three balls, at the first fire of the regular Italian troops. One contused the left knee, the other grazed the right hip, the third caused a more serious wound and penetrated the right ankle, a little above and in front of the internal malleolus. Garibaldi took only a few steps, when, from pain, he was obliged to sit down, after which he made no further attempts to walk. A few minutes afterwards, on the battle field, Doctor Albanese, having noticed on the other side of the foot a slight swelling, made an incision at that point. Not having found the ball, he

thought it prudent to wait. The wounded man was conveyed in a steamer to Spezzia, and entered the fort of Varignano on the evening of September 2d. Two days afterwards, in the presence of Rizzoli, Zannetti, Prandina, Negri, Riboli, and of Albanese, Repari and Bazile, physicians and friends of the general, Professor Porta, of Pavia, explored the wound. The consulting physicians concluded from this examination that the ball was not in the wound. M. Bazile, however, had some doubts on this point, and so expressed himself several times to Garibaldi, and also to Professor Porta. Nélaton was summoned. He arrived at Spezzia Tuesday, October 28th. The general had been confined to his bed two months. At the very commencement of the exploration he felt convinced that the ball was in the wound. The introduction of an ordinary probe gave to his equally trained ear and hand a double sensation, which left no doubt in his mind as to the presence of the ball. Such was also the opinion of Partridge and Pirogoff, who came three days afterward. Having returned to Paris, Nélaton reflected on the surest means of removing the doubts in the minds of his Italian colleagues, and he related with his accustomed modesty how he was directed in the right way. M. Emmanuel Rosseau, said he, gave him the hint. It consisted in introducing into the wound a body of small dimensions, capable of receiving a metallic impress easily recognized. A few days later, Nélaton sent to the surgeons of the general a probe having an olive-pointed, unpolished white porcelain extremity, upon which, by a rotary movement, the projectile revealed its presence. Professor Zannetti, who had failed with the electrical battery, obtained with this probe received from Paris the certainty so much desired. November 22d, a piece of compressed sponge was inserted in order to dilate the wound, and the next day Zannetti extracted the ball with ease.

The same day Nélaton received from Pisa the following telegraph, signed by the Prefect of Pisa, Torelli: "Ball extracted from Garibaldi's wound, verifying your diagnosis, guaranteed by your probe. All honor to you."

In the first part of December the general wrote to Nélaton: "*My very dear friend:* I owe you a few words of love and gratitude. Your coming to Spezzia has been a fortunate thing for me. If at any time a doubt had possessed my mind, your interview was so eminently sympathetic, your words of encouragement so eloquent, that I could no longer doubt my recovery. I am a great deal better since the extraction of the ball, so skillfully done by our illustrious compatriot, Professor Zannetti, by the aid of the instrument which you had the kindness to send me. May God bless you." "GARIBALDI."

The name of the wounded, the gravity of the event, of which Italy was the theatre, the eminence of those gentlemen who had held a different opinion, curiosity and public expectation, conspired to popularize the French surgeon. The name of Nélaton was spread far and wide, and he from this time took the first rank amongst his illustrious contemporaries. In our day, when talent abounds, individual renown is rare. At the time when he was called to Italy he enjoyed a reputation uncontested. After this event his success increased, and very soon his practice became immense. His prudence, his gentleness, the confidence which he inspired, the affectionate solicitude for his patients would have been alone sufficient without the merit of the surgeon, to explain his growing reputation. His frank and smiling face dissipated every fear. With him, rash undertakings were never feared. The confidence which he inspired was absolute. Full of kindness for his colleagues, he never intruded. There was in the medical corps no teacher more beloved or more sought after than

he was. During the last ten years of his surgical practice there were but few difficult cases in which he was not called in consultation.

Toward the middle of 1867, M. Jobert being dead, Nélaton was called to the office of surgeon to the Emperor. To-day, when the idea of equality has become, as it were, a law of justice, the physician has no superior. Medicine demands a versatile talent, and a physician most worthy of the name represents the highest type of moral and intellectual culture. The social mission which he is called upon to fill, the extent and variety of knowledge which it exacts, the number and importance of its applications, assign him in our society a position which yields to none. His profession brings him in contact with every class of society, and it is his duty to proudly retain in his association with the powerful of the day what others lose, namely, sincerity and independence. In the office referred to, which he had not sought, Nélaton knew well how to foster in his own person a respect for the profession to which he belonged. On the very eve of the French disasters, the Emperor, in testimony of his gratitude, gave him a seat in that high chamber that was soon to disappear with imperial institutions. The preceding year he resigned his professorship. At the same time he tried to retire from that enervating work which he had endured so long. He was now 60 years old; his sight grew weak and his health began to fail. The surgeon acquires by strength of will the necessary *sang froid*, and a complete mastery of himself, without which he can do nothing. But in these noble efforts which do honor to the man, life oozes away from many wounds which are constantly renewed. However, events precipitated themselves. The day of the siege came. Nélaton desired to perform duty in the ambulance. This last effort broke down his health.

Cardiac disease, from which he was suffering, made rapid progress. His step became heavy, and an expression of languor and sadness had taken the place of the smile which formerly illuminated his face. Disturbances of the circulatory system were becoming more frequent. His visits became less and less. By unanimous vote, every year renewed, the physicians of the department of the Seine placed him at the head of their association. Although broken down by disease, he never ceased to coöperate in that brotherly work. Yielding to the solicitations of his relations and friends, he left Paris. But neither Italy, nor the sea, nor the air of the country could triumph over an incurable disease. On Sunday, September 21, 1873, he breathed his last, in the midst of his family, at the age of 66. His obsequies took place without pomp. No discourse was pronounced over his remains. This was his wish, and it was piously respected. Upon the hearse, which was surrounded by a sorrowing crowd, there was nothing to suggest the great dignitary of State, the academician or the professor. While they followed that modest coffin buried in flowers, the recollection of the eminent surgeon was involuntarily associated with one of the greatest French naturalists.

The surroundings were not those of luxury, but in a bare room, his hands chilled with misery, Michel Adanson requested, as the only decoration of his grave, a garland of flowers gathered from fifty-eight families of the vegetable kingdom he had differentiated—"a passing image," said Cuvier, "of the more durable monument which his own labors had erected for him."

Nélaton belonged to a hard working generation, for the most part passed away, worthy heir of the great surgeons of the beginning of this century, a cultured élite which had rendered many services to the profession, not the least of which

was the opening up of new paths still pursued by the surgeons of to-day. Experience is only acquired at the cost of many struggles. A stranger to all vulgar ambitions, not striving to eclipse any one, he had gained the esteem and affection of all.

He was already celebrated when his name became connected with the hero of Italian independence. In the succession of events which mark the course of life, the last are engraved most deeply in the memory. There are some whose written works stamp the names of their authors in the memory of generations. There are others, amongst the best, superior less by what they do than by what they are, more occupied in spreading truth by speech than by the pen, who seem to have worked more for their contemporaries than for posterity. From the past, what an amount of acquired knowledge has come into our possession, what varied discoveries—precious inheritance, whose origin is lost in the long ago, and which we spend without gratitude. Like those pieces of money whose figures have disappeared by long use, but which are still in circulation, without having lost their value. Do not forget that all real progress prepares the way for more. Science is an enchanting fugitive, of which it is said: "No one can seize it; it always allures us onwards, because it is always in advance of us."

EDITORIAL.

THE GERMAN MEDICAL STUDENT AND PHYSICAL DIAGNOSIS.

The medical schools of Germany rank so deservedly high that the desire naturally arises in us of the western world to know what manner of medical man is sent forth from these institutions of learning.

The key note of the whole matter was struck by a German physician, a graduate of the Friedrich Wilhelm University, at Berlin, but now practicing medicine in this country, when he gave us his impression of the difference between German and American doctors. As nearly as we can recall his words, he said: "In Germany, a physician must make a correct diagnosis, whether the patient gets well, or no; but, in this country, a practitioner does not seem to think it so necessary to make an accurate diagnosis, as to treat the patient to the best of his ability." This touches the very point of weakness in our system of medical instruction. German medical students are undeniably better prepared for their medical studies and more thoroughly drilled than are those in this country.

Favored with excellent instruction in all departments, they are particularly fortunate in the opportunities afforded them to become familiar with all methods and means of diagnosis. Not only is clinical material ample and completely under control, but the students are admirably prepared to utilize this material by a rigid course of instruction in normal and pathological anatomy. Moreover, instruction in diagnosis is not

imparted chiefly by didactic lectures, or by illustration on the part of the teacher; but it is intensely practical. Every man is given an opportunity to use his hands, as well as his eyes and ears, and thus he acquires considerable manipulative skill before entering upon the actual practice of his profession. In all departments of the "Polyclinic," whether of surgery, internal medicine, of the eye an ear, throat, or gynecology, the patients are turned over to the students for examination, who are then required to report their diagnoses to the instructor. Referring to a period in Munich devoted almost exclusively to physical diagnosis, we desire in this connection to emphasize the value of percussion and ausculation to the general practitioner, under almost all circumstances, and the need of bestowing greater attention upon the attainment of marked proficiency in this direction. We can not do better than to narrate how physical diagnosis is taught in the capital of Bavaria. At the opening of each semester, Professor Joseph Bauer organizes classes in physical diagnosis, dividing them according to the experience of their members. These classes meet the professor four times a week, and are then conducted into the hospital wards, where they are assigned, in groups of three or more, to each patient, being expected to examine the case as carefully as possible and to report their diagnosis to Dr. Bauer upon his return, at the close of the hour. After hearing the opinion of each student, he then goes over the case minutely, pointing out its peculiarities in detail. The class of diseases thus examined are not confined to affections of the thoracic viscera, but embrace all conditions in which skillful percussion and ausculation may be required. Particular stress is laid upon the exact mapping out of the various organs, healthy or diseased. This is an excellent discipline, the students being spurred on

by a double stimulus—desire to win the approbation of the professor, who is a diagnostician of acknowledged skill, and, on the other hand, a spirit of emulation between the students assigned to each case. Then, when the students advance a step higher and attend the medical clinics of Von Gietel or Von Ziemssen, their diagnostic skill is put to the test in a most admirable way. Von Gietel conducts his class into the wards, and selecting some "praktikant," as the men are called who take these practical courses, he requires him to examine a patient, explain his symptoms and suggest treatment, the student being expected thereafter to keep watch of the case. Ziemssen's method was different. Instead of giving his clinics in the wards, he has the patients wheeled on beds into the amphitheatre of the lecture room, within full view of all present. One of the "praktikanten" is then called down into the amphitheatre, and in conjunction with the master examines the patient, often having to endure a searching fire of questions. These quizzes are calculated to draw out all a man knows, and frequently summons the tell-tale blush of confessed ignorance into the scared face of some swaggering *medicus* who but a moment before looked puffed out with self-satisfaction. Ziemssen, whose name is so familiar to the medical profession of the civilized world, through his important contributions to medical knowledge in individual writings, and by his editorship of "Ziemssen's Cyclopedia of the Practice of Medicine," is a most happy clinical instructor, full of nervous activity, alive to every new discovery or suggestion in medicine, yet slow to adopt a novelty until having himself investigated and proven or disproved its merits. His delivery is easy and animated, while he is untiring in the illustration of his remarks, either upon the patient, the blackboard, or by plates and models. He is an adept in all means

of diagnosis. He neglects nothing, however trivial, that can throw light upon the case. He is as equally at home with the microscope and the litmus paper, the sphygmograph and the thermometer, the laryngoscope and the tongue depressor. He examines critically all excretions, and never omits to note any phenomenon or deviation from the normal standard, however apparently insignificant. But he lays special stress upon percussion and auscultation as a means of diagnosis, and never loses an opportunity to impress upon his listeners the importance of always making a careful examination of the chest, no matter whether disease of the thoracic organs be suspected or no, for, as he says, "It will often throw unexpected light upon the case, and render clear and definite a diagnosis which was before shrouded in obscurity."

If, then, a man of Ziemssen's experience and professional attainments considers it always necessary to carefully investigate the condition of his patients' internal organs, how much more essential is it for one of less extended experience! And it is exactly in this regard, as it appears to us, that our general practitioners are careless, if not actually incompetent. How common it is for the physician, when called to see a new case, to content himself with a superficial examination! He feels the skin and pulse, takes the temperature, perhaps, looks at the tongue, inquires as to the symptoms, asks a few questions concerning the bowels and digestion, and then prescribes, contenting himself and the family with some vague diagnosis, wherein he confounds a symptom with the cause, or but too often saddles the whole thing on to the shoulders of that much-abused scapegoat, malaria. Why is this? Is it from indolence? from an underestimate of the importance of a thorough physical examination? or from an inability to make such an examination? Doubtless all of these reasons exist. But we think,

as a rule, the last two really furnish the explanation of the too prevalent neglect in this country of adequate physical diagnosis. And, since that is so, the blame attaches not so much to the practitioner as to that system of medical training which failed to prepare him to appreciate the value of, and to skillfully employ, percussion and auscultation. How many institutions of medical instruction really afford their students adequate training in this direction? How many of the medical graduates go forth to practice, conscious of their ability to accurately diagnosticate diseases of the chest? Alas! but too few! Yet an assertion was made to us, last winter, by a physician of Chicago, to the effect that general practitioners have made such progress in the diagnosis of disease as to render specialists in diseases of the heart and lungs unnecessary. We daily learn of facts that teach another lesson. A lady recently complained because her physician, after making an examination over all her clothing, pronounced the apex of one lung to be indurated; whereas, it is needless to say, percussion of the bared chest brought out a normal vesicular resonance. In another instance, a practitioner mistook a superficial muscular dullness for high-pitched percussion note of pulmonary consolidation. We have in mind a case where the second stage of pneumonia was mistaken for a tuberculosis with the rapid disintegration of lung substance. Another, where the vicarious vesicular emphysema of a portion of a consolidated lung was mistaken for pneumo-thorax. And instances of inorganic cardiac lesions being pronounced organic are every-day occurrences. But why multiply examples? It is patent to candid minds that an improvement in this direction is called for. Our medical schools should adopt some system of teaching physical diagnosis which will compel every student to percuss and auscultate personally and not be satisfied with observing how it

is done. And before being granted his certificate of proficiency, he should be compelled to give the instructor in this department practical demonstration of his ability to diagnosticate cases set before him. And we respectfully submit this matter to the attentive consideration of our medical colleges. To the busy practitioner, who cannot return to an institution for further instruction, yet who feels his incompetency to detect obscure morbid conditions within the thorax, to such we recommend that henceforth he embrace every opportunity to percuss and auscultate the chests of his patients, whether healthy or diseased, and he will soon be surprised to perceive the degree of keenness which his ear will acquire, while his percussing finger will detect minute differences in the resistance of parts percussed, of which he never before dreamed. He will thus often be enabled to clear up cases which before would have baffled his limited diagnostic powers, and will find a degree of success attending his therapeutic measures that will convince him how important accurate diagnosis is to a clear-sighted, rational, successful treatment.

A COLLECTION OF CURIOSITIES.

The skill of the best diagnostician is, without question, a product of profound study, wide experience, and mastery of many of the innumerable problems of science. This, however, is not all that he requires. There is a chamber of curiosities which he should at times visit, in order to be periodically reminded that even the expert must possess a mental quality which is, perhaps, well described in our language by the familiar phrase, "common sense."

The collection of bric-a-brac in this apartment includes things new and old. Needless to describe, standing just with-

in its portal, the wax-figure of the doctor, in his rusty garments of antiquity, who first mistook a uterus containing a live fœtus for a malignant growth. Only a little less known is his vis-a-vis, the effigy of the famous imposter who, by simulating epilepsy, deceived half the profession in England!

The miscellaneous assortment of articles covering the long tables beyond are not the least valuable of the singular contents of this chamber. They have been responsible for obstinate disturbances and diseases of almost every system of the human body, full of mystery till their agency was explained either by accident or skill; and the professional reputations they have wrecked, no man can number. Here are peas, beans, and other small bodies from the vegetable kingdom; pieces of shells, and fragments of insects; pens, pencils and umbrella-ribs; parts of domestic utensils; and even candles and parts of candlesticks; with who can say what else beside! These have been thrust into the ears, noses, and flesh of innumerable men, women and children; stuffed under their eye-lids; rammed into vagina and uterus; insinuated into urethra and bladder; pushed into the rectum and colon; and even lodged in the umbilicus! Each can tell a sad tale of misguided humanity; each can teach a true lesson to the diagnostician. Here are the round dozen of small files taken from the stomach of a madman in Portugal; here is an entire beer-bottle removed from the bowel of a man in Massachusetts; here is the famous Hodge pessary turned out from the bladder of a woman in Illinois! Here, also, are curious concretions of animal matters which have occasioned no little suffering to the unfortunate people who secreted them, and have tripped up too many a good doctor who was summoned to cure their mischief. Here are scybala, scarcely less solid and bulky than cannon shot; caseous rings cast

about the glans penis, as firm as the rind of an ancient cheese; pellets of wax like bullets of lead!

The collection representing the animal kingdom is not without its objects of interest. Here are the larvæ of insects deposited beneath the skin; lice, whose incursions upon the human body have been responsible for many a "humor of the blood"—(poor abused human blood!)—fist-sized masses of inwoven lumbricoids that could deceive the very elect! Ah, what volumes would contain the learned opinions written on the diseases caused by these and their like, the only fault of all which was that neither writers nor readers ever guessed the real truth!

With every year this singular collection grows apace. With every venture of man's ingenuity to make life better worth living, there seems to spring a new source of disease, and hard by it yawns a new pit-fall for the diagnostician. Yonder, for example, are some rather new-looking retorts, containing gaseous emanations from sewers, that have been responsible for ever so many cases of "neurasthenia!" Who was it that lately told the secret that the curious Brazilian disease of the little toe, known there as "ainhum," was produced by tying a string about the diseased organ, under the influence of superstitions prevalent among the negroes of that country?

At the last meeting of the American Dermatological Association, two new contributions were made to this collection of curiosities. One was a ball of blue worsted, employed, innocently enough, by an old lady in knitting stockings, but yet two physicians thought she was suffering from a rare case of blue sweating under the eye-lids, till it was shown that her soiled fingers, applied to that part when irritated, had conveyed the coloring material to it from the worsted. Another was a red-bordered blanket, the edge of which, exposed be-

yond the sheets of the bed-clothing, had become responsible for the "syphilis" of the unfortunate youth who had slept in its folds and thereby received its aniline stain beneath his chin.

The very latest addition to the museum is contributed by Boston. At first sight one would assuredly not regard it as an object of suspicion. It is only a partially digested oyster. Yet this depraved bivalve lay in wait, like a wolf, for a wandering sheep of a diagnosis. Having obtained access to the stomach of a patient, it refused there to accomplish its destiny of digestion, and had itself thence incontinently regurgitated. On its travels to the upper world again, it found temporary lodging in a convenient tonsil at hand, that asked no questions and demanded no rent. When did a scurvy knave of the world ever fail to find an accomplice in his villainy! Being thus safely lodged, our errant oyster had himself arrested by two pathologists for a neoplasm, a malignant outgrowth from his tonsillar environment; but, his real character having been discovered, his carcase serves, as should those of all convicted rogues, to point an old, old moral, and to adorn a tale that can scarce be too often told.

LITERARY NOTE.

Messrs. Jansen, McClurg & Co., Chicago, have issued a new work, on the "Principles and Practice of Medicine," by Dr. N. S. Davis. The work is not a compilation, but an embodiment of the observations, thoughts, and experi. ences of the author during nearly fifty years of active medical practice. The matter is presented in the form of lectures, delivered by him during his many years of teaching. The features which especially commend the work to the prac-

titioner and student, are the fullness with which the clinical history of the various diseases is given, and the explicit and detailed description of the methods of treatment which have been found most effective. The author's adoption of the metric system of weights and measures is worthy of notice and commendation. Although this system has been advocated by leading scientific and medical societies, it has come into use only to a limited extent. To assist in effecting this change, Dr. Davis has used the metric system throughout the work—giving, however, in brackets, the equivalents in apothecaries' measure.

The volume is about the size of Bartholow's "Practice of Medicine," but more closely printed. The author is well known throughout the country as one of the ablest and most original thinkers in the profession, who has won a high reputation as a lecturer upon practical medicine; and the profession is to be congratulated upon having, in a permanent form, the rich results of his busy professional life.

BOOK REVIEWS.

DISEASES OF THE THROAT AND NOSE, INCLUDING THE PHARYNX, LARYNX, TRACHEA, ŒSOPHAGUS, NOSE, AND NASO-PHARYNX. *By* MORELL MACKENZIE, M.D., (*London*) *etc., etc. Volume II. Diseases of the Œsophagus, Nose, and Naso-Pharynx, with Index of Authors and Formulæ for Topical Remedies. Illustrated. Octavo, pp. vi., 550. Philadelphia:* P. BLAKESTON, SON & CO. *1884.*

The second volume for which the profession has been waiting several years. This volume treats of the Œsophagus, Nose, and Naso-pharynx. If there is any difference in the two volumes, it is in favor of the present one. The first portion of Volume II. relates to the disease of the Œsophagus.

The diseases of this organ have been little studied, and it consequently opens a comparatively new field.

In the opening chapter the author shows that the Œsophagoscope is not a plaything, but an instrument of utility, as he has shown that it can be successfully used in the majority of cases.

The chapters on Acute and Chronic Œsophagitis are very interesting, as they treat of diseases that are often overlooked. The other parts of the volume relate to the Nose and Naso-pharynx; they contain nothing particularly new, as it is with this organ that the specialist in this country has particularly to do.

This treatise should have a place in all physicians' libraries, and is also one of the best works for the student, on this subject.

FRANK O. STOCKTON.

LECTURES ON THE PRINCIPLES AND PRACTICE OF MEDICINE. *Delivered in Chicago Medical College, Medical Department of the Northwestern University, by* NATHAN SMITH DAVIS, A.M., M.D., L.L.D., *Dean of the Faculty and Professor of Principles and Practice of Medicine and Clinical Medicine in Chicago Medical College, etc., etc. 8vo., pp. x., 896. Chicago:* JANSEN, MCCLURG & CO., 1884.

Davis's Principles and Practice of Medicine is one of a number of good books which have been issued by the American press during the present year. Owing to the prominent position of its author in the medical profession, and community, this book is destined to arouse an unusual degree of interest and provoke acrimonious criticism. Dr. Davis has acted wisely in embodying the views and modes of practice, developed during "fifty years of constant devotion to the study and practice of the healing art," in one volume of ninety-two lectures. The book is thus placed completely out of the pale of censorious criticism. Cavilers are at once disarmed, and the rules of criticism applicable to a systematic treatise on the theory and practice of medicine are unsuited to the review of the book under consideration. Then, too, by the adoption of the style of conversational lectures the book acquires an intensely practical character without losing in theoretical interest. Billroth adopted, with obvious advantage, a strictly similar method in the composition of his justly famous "Fifty Lectures on General Surgical Pathology and Therapy."

In Part First the elementary consideration or principles of

medicine are discussed in a clear, distinct, vigorous manner. *Vis medicatrix naturæ* receives appropriate and adequate recognition. The suggestions as to the examinations of the sick are of an eminently happy and practical character. The consideration of individual diseases is confined to Part Second. In the discussion of individual diseases, a concise history of each affection is narrated. Too much praise cannot be bestowed upon this feature of the treatment of the subject. Knowledge of the history of disease is necessary to adequate comprehension of medical science. For a long time this subject has been neglected by systematic American and English authors. This omission has not escaped the attention of German and French writers, whose frequent, pointed allusions in the recent International Medical Congress are known to every one.

The chapters on Etiology and Pathological Anatomy give evidence of critical study of most recent developments. Dr. Davis does not believe in the causative influence of "bacillus tuberculosis," or the comma bacillus. In this conviction he is thoroughly in accord with many, perhaps most, eminent clinicians. Morbid structural changes are sketched with as much attention to detail as the general plan of the book will permit.

The vivid pictures of individual diseases, in the chapters on symptomatology and diagnosis, resemble in force and vigor the faithful delineations of the late Doctor Geo. B. Wood.

Dr. Davis's views of treatment are well considered and rational. He is not skeptical as to the physiological action of drugs, and one's faith in therapeutics must be strengthened by a study of the book. The ninety-second chapter is devoted to the discussion of the therapeutic value of alcoholic liquids in the practice of medicine. The author's convictions upon this subject are so well-known that it is scarcely necessary to make the following quotation: "And whoever will boldly make the

trial will find that his patients, of every kind, will make better progress on good air and simple nourishment, without any admixture of alcoholic liquids, than they will with such addition."

Few practitioners will be found willing to accept such a *dictum* as settling a question still *sub judice*.

The incorporation of the metric system into the text of the volume marks an important departure from time-honored precedent. All embarrassment on the part of practitioners, educated to the exclusive use of the apothecaries' system, is obviated by the enclosure of equivalents in brackets.

The prominence given to current American medical literature, and to the consideration of the conditions influencing disease in North America,—while not impairing the symmetrical exposition of medical science, viewed absolutely,—adds vastly to the worth of the book for the American practitioner, and renders it unique in medical literature.

The book is not without faults. Errors in spelling and syntax are numerous. On page 13 the following sentence occurs: "To obyiate these objections, and at the same time to add another important element to the comparison, I selected a good sized, healthy dog, and while stunned by a blow on the head, quickly opened the abdomen," etc., etc. From the construction of this sentence it is uncertain whether the sensibility of the operator, or of the dog, was benumbed.

These errors, however, are not vital, and do not influence the real value of the production. A careful revision of the book will eliminate them.

Finally, in recommending the book to students and practitioners, we have no hesitation in placing it among those "few" books, "to be chewed and digested," that is, "to be read wholly, and with diligence and attention." W. W. J.

THE NATIONAL DISPENSATORY. *Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines; including those recognized in the Pharmacopœias of the United States, Great Britain, and Germany, with Numerous References to the French Codex. By* ALFRED STILLE, M.D., L.L. D., *Professor Emeritus of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania, and* JOHN M. MAISCH, PHAR. D., *Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Third Edition, thoroughly revised, with numerous Additions. Three Hundred and Eleven Illustrations. Octavo, pp. xiv., 1755. Philadelphia:* HENRY C. LEA'S SON & CO. *1884. Chicago:* JANSEN, MCCLURG & CO. *1884.*

It was predicted in 1879, from *apriori* considerations, that the National Dispensatory would achieve brilliant success. With Professors Stille and Maisch—leaders in their respective professions of Medicine and Pharmacy, as authors, failure was difficult of conception. Two large editions have been rapidly exhausted in the brief period of five years! The authors and publishers could not have anticipated this cordial recognition of a practical book by practical men. The reviewer's task is a supererogation. The third edition of the National Dispensatory embodies the recent editions of the Pharmacopœias of four chief civilized Nations, the United States, the United Kingdom, Germany and France. The illustrations of the present edition—increased in number—are good, while the paper, type, binding, and general appearance of the volume reflect credit upon the intelligence, liberality, and business enterprise of the publishers. W. W. J.

THE FIELD OF DISEASE: A BOOK OF PREVENTIVE MEDICINE. *By* BENJAMIN WARD RICHARDSON, M.D., LL.D., F.R.S. *8 vo.,*

cloth, pp. 737. Philadelphia: HENRY E. LEA'S SON & CO. 1884. *Chicago:* JANSEN, MCCLURG & CO.

As stated in the notice of the American publisher, this is the only work on preventive medicine accessible in the English language, and it is wisely written for, and addressed to, the public; for, as long as no provision exists for the reward of the prevention of any disease, although it may be now understood that the prevention of disease belongs to the function of the physician—still, the public finds it necessary to protect itself, and will find it necessary also to pay the services of its protectors even when they happen to be physicians.

No doubt the tendency on the part of the people in some sections of this country to employ family physicians by the year, gives the profession some facility for preventing a number of diseases by timely services; but this wise custom seems to decrease and to give place to the indiscriminate use of any medical man of any school, as emergency suggests. The role of preventive physician falls naturally to Boards of Health.

It is interesting to learn in the first chapter that there are: "*One thousand one hundred and forty-six* variations from health, making up the conditions and the phenomena of disease to which the human family, at this period of its civilization, may be subjected." But most of these are local affections; and of the 58 general diseases, 33 include the contagious and infectious, and 25 the great constitutional diseases.

The author's language, with a view to elucidate the text, contains many vulgarized scientific expressions, of which the following is an example: "If the body be exposed to agents which modify the vascular tension so that through the vessels the blood shall pass with undue friction, there may be an increase of fever which might be called *frictional fever*." Whether this frictional fever will come into favor amongst physicians, and

whether the "vascular tension" will be readily understood by the popular mind, remains to be seen.

The descriptions and definitions of the General Diseases are admirable for their terseness and clearness, and will be well understood by even illiterate readers.

The local diseases, on account of their variety, and for lack of a better classification than that commonly accepted, are not so satisfactorily described.

Medical readers will be surprised when looking at the paragraph on "*Membranous Croup*" to read that the disease "is not contagious," and that "it is considered as a local disease."

Of pneumonia, the author says that, "Essentially the disease is one, but various writers upon it speak of it as of different varieties." He omits to mention Croupous or Lobar Pneumonia, and says that the disease "is not contagious." Doubtless Dr. Richardson ought to read the article on Croupous Pneumonia, by Juergensen, in Ziemssen's Clyclopœdia, and many valuable reports on the subject by American writers.

Consumption is also treated of as a local affection!! Neurasthenia, of course, is not to be found in a work by an Englishman.

The Nomenclature of Mental (?) Diseases is restricted to Hypochondriasis, Mania, Melancholia, Dementia, Imbecility, and Idiocy, which occupy a little more than two pages.

Trichinosis is treated of as a local affection of the muscular system.

The third part of Book I. treats of Diseases from Natural Accidents, and contains much literature on medical topics rarely treated in ordinary works on Practice or Surgery.

Acquired Diseases from Inorganic and Organic Poisons form one of the most instructive and valuable parts.

Weather and Season as Causes of Disease have not been

omitted, nor a discussion of Zymotic Causes; but the subject of cadaveric alkaloids as a factor in the Germ Theory is too recent a discovery to deserve attention in these pages.

Part the Second of Book III., which ought to have formed the bulk of this volume, being "A Practical Summary of Preventions of Disease," occupies the sixty-eight pages preceding the index. A separate publication of these few pages would confer a service on the profession in general, and on medical students in particular, while it might also suffice for the wants of the laity, few of whom, at any rate, can intelligently read the rest of the volume.

This latter part can never be too highly extolled, and would surely redeem faults of other portions if it was as extensive as it is valuable. To sum up, this being the only work treating of Preventive Medicine, should have an extensive sale amongst all educated classess, and its unavoidable faults should be overlooked in view of the crude state of our pathological learning as taught to-day. However, a few years of medical progress, stimulated by our lately established boards of health, will probably bring about, even during this generation, the means of providing far better knowledge of disease for the people at large, if not better means of prevention than found in this work. H. D. V.

LEGAL MEDICINE, VOL. II. *Legitimacy, Abortion, Rape, Sodomy, Infanticide, Drowning, Hanging, Suffocation. By* CH. MEYMOTT TIDY. *Royal, 8vo., sheep, pp. xxiv., 508. Philadelphia:* HENRY C. LEA'S SON & CO. 1884.

We have had the pleasure of reviewing in the pages of the JOURNAL the first volume of this work, as published in two separate volumes, by the firm of Wood & Co., of New York, and we must say that the firm of Lea, in issuing such a beautiful

edition, does credit to the value of this admirable work. A first glance at such a store of varied information, so rapidly issued, reminds one of Washington Irving's "The Art of Book Making," but the simile ends with this suggestion, for the wealth of information is probably surpassed by the interest of the style and the judgment of the author.

We cannot say more than what we expressed in the JOURNAL of October, 1883, regarding this work of Medical Jurisprudence. We think that it is supplying the want of many, and that it is fully up to the times, as far as English Law is concerned. H. D. V.

ILLUSTRATIONS OF THE INFLUENCE OF THE MIND UPON THE BODY IN HEALTH AND DISEASE, DESIGNED TO ELUCIDATE THE ACTION OF THE IMAGINATION. *By* DANIEL HACK TUKE, M.D., L.L.D., ETC. *Second American, from the second English Edition. 8 vo., cloth, pp. 482. Philadelphia:* HENRY C. LEA'S SON & CO. 1884. *Chicago:* S. A. MAXWELL & CO.

In this portly volume, Dr. Tuke, under the modest intention of giving a collection of authenticated facts, in which the imagination has worked wonders, for good and evil, in the human economy, enters into the mechanical laws by which such facts are produced, and gives what, to unbiased men, will appear a thorough explanation of the miracles performed of old by the Mystics and by the Spiritualists in our days. Nothing has been omitted, not even the rationale of *stigmatization.*

The large amount of interesting anecdotes may render this book popular with the profession, the educated classes, and even the commonest readers. This could not be the case if the philosophy of the subject had been more deeply inquired into, but such a treatment of the subject would not have given the

author as positive views as he derives from pure physiology, and to the majority of readers his explanations will appear, for that very reason, the most satisfactory.

The Psycho-Therapeutics, which are the outcome of the facts stated by the author, are worthy of careful study. In the use of doubtful agents, as electricity, for instance, it is sometimes imperative to give the patient the strongest hopes. Fear is not recommended as a safe agent. The strengthening of the will in hysteria will be beneficial. Systematic excitement of a definite expectation, direction of the attention to a particular region of the body, mesmerism, braidism, etc., have their range of utility, with some extrinsic value, and should be more generally known by physicians. This volume is neatly printed. It contains a few explanatory diagrams, and is highly interesting throughout. It is destined to eliminate many religious superstitions among the learned classes, and will contribute some sound information to the busy practitioner, but the quacks will, financially, make the most of it. H. D. V.

A TREATISE ON BRIGHT'S DISEASE OF THE KIDNEYS, ITS PATHOLOGY, DIAGNOSIS AND TREATMENT. *With Chapters on the Anatomy of the Kidney, Albuminuria, and Urinary Secretions. By* HENRY B. MILLARD, M.D., A.M. *With numerous Original Illustrations. 8 vo., cloth, pp. xiv., 246. New York:* WILLIAM WOOD & CO. 1884.

A very modern book, which cannot be too highly recommended to medical students. Not incumbered with unnecessary details, not swollen by lengthy reports of cases, or the discussion of antiquated or doubtful modes of therapeutics, this manual would derive its best recommendations from its terseness and well selected material, were it not for the fact that it contains a large private experience on the part of the author,

and this will give it the rank of a valuable contribution to a class of diseases, which, but lately considered incurable, now turn out full of promise for the methodical, scientific practitioner. H. D. V.

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY. *Stated Meeting, 14th July, 1884. The President,* Dr. D. A. K. STEELE, *in the chair.*

The meeting was well attended, the cases presented, and the papers read, of interest, but the crowded state of our columns compels us to abridge the secretary's report.

Dr. Franklin H. Martin read a paper on "A Successful Case of Abdominal Section for Pyo-Salpinx, Treated by Volkmann's Method." A brief report of this interesting and instructive case is appended.

Mrs. X, American, aged 29, weight 200 pounds, no children, but one three months miscarriage 4 years since, consulted me a year ago because of suspected pregnancy. She had many of the symptoms of pregnancy—pains in the breasts, morning sickness, enlargement of breasts and increased size of abdomen. She had flowed regularly, however, every month that pregnancy had been suspected. The ordinary digital examination was made at this time, but no decided diagnosis was made. I advised her to see me later, and in two months I made another examination, and with all the methods adopted was unable to satisfy myself as to the true condition. I at this time took her to Professor Byford, who, upon making an examination and hearing her history, which was at this time to the effect that she felt very decided fœtal movements together with the other characteristic symptoms, was inclined to pro-

nounce it a case of pregnancy. The woman had continued to flow scantily every month. Five months later I saw the patient, and, with Dr. R. W. Bishop, gave her ether and made a very thorough examination. By bimanual manipulation, through both vagina and rectum, the small, undeveloped uterus was found crowded close up behind the symphysis pubis, and inseparable from a large firm-walled tumor, about the size of a five-months pregnancy, occupying Douglas' *cul de sac*, and extending upwards nearly to the umbilicus. This tumor occupied a position a little to the left of the median line. Owing to the corpulency of the patient and the great thickness of the abdominal walls, it was impossible to make a positive diagnosis as to the character of the tumor. The probe was introduced into the uterus, and it measured 2½ inches. The patient was again taken to Professor Byford, and after careful examination he pronounced it a fibroid of the uterus. He, however, with commendable conservativeness, advised me not to be in a hurry to operate. Although the woman was suffering greatly from the pressure of the tumor upon the bladder and rectum, and intense backache and other reflex manifestations, I waited two months for further developments. At the end of that time, after laying before the patient the true condition of affairs, she was ready and anxious for an operation.

The 15th of May, therefore, assisted by Doctors R. W. Bishop, L. L. McArthur, E. L. Hollister, L. T. Potter, Stanley Black and T. H. Swayne, Doctor E. J. Doerning also being present, I proceeded by abdominal section to remove the tumor. All necessary antiseptic precautions attended to, an incision was made, about eight inches in length, through the abdominal wall, reaching from near the umbilicus to the symphysis pubis. The omentum was found firmly adherent to the tumor,—the adhesions covering a space of three or four inches

in diameter. The adhesions were ligated with cat-gut and carefully separated. It was now, after the omentum was separated, that I knew for the first time the true nature of the tumor. It was not a fibroid, but a large dilation of the fallopian tube of the left side. The walls were very thick and firm, and the tumor so generally adherent to the surrounding tissues that it would have been easy, even yet, to mistake it for a solid tumor. The sense of fluctuation was very indistinct, and only by introducing a needle of an aspirator was there no doubt left. The contents were pus. The tumor, upon further examination, was found to spring from the left horn of the uterus, and on the opposite side of its attachment to the uterus were the remains of the fimbriæ of the tube, and the ovary of the left side. The walls were of a muscular character, and very smooth. My intention was to remove this tumor entirely, clamping the small pedicle and attaching it in the inferior angle of the wound. But the tumor was found so universally adherent to the surrounding tissues that it was soon found impracticable to remove it with any reasonable hope of success. The intestines were firmly adherent upon almost its entire surface above, and the rectum was so closely adherent, that it seemed to be almost a part of the tumor. It was decided, therefore, after a short consultation, to resort to Volkmann's method of treating abscesses and similar tumors in other parts of the abdomen, viz: Stitching the walls of the tumor or abscess to the peritoneal edges of the abdominal wound and treating it, after union had taken place, as an external abscess. This was done in this case, the wound in the abdomen was closed as is usual, with the exception of the lower angle, where about three inches were left open. The tumor was stitched to the peritoneal edges of this open wound, so that when it was completed, about two inches in diameter of the upper surface of

the tumor was exposed, and the peritoneum was closed. The whole wound was dressed antiseptically. The fourth day following the operation, the wound was exposed and the tumor was found firmly adherent to the abdominal wound. A free incision was now made into the tumor and a large double half inch drainage tube introduced to the bottom of the abscess. More than a quart of healthy pus was extracted, and the cavity was thoroughly washed out with a two per cent. solution of carbolic acid, by means of a fountain syringe, and that in turn (to prevent carbolic acid poisoning) was followed by a saturated solution of thymol. The abscess cavity was washed out thoroughly night and morning after this with a sol. of corrosive sublimate (1 to 3000) and the external wound dressed with corrosive sublimate gauze (1 to 2000). The patient continued to do well with this treatment until May 25th, the ten days following the operation, when the temperature suddenly rose up to 102° F., and the following day to 103⅗°, the respirations were irregular and quick, and the pulse from 120 to 160.

At this time I called in Prof. Fenger in consultation. After a very careful examination of the patient, he decided that the lining of the abscess might possibly have taken on a change whereby it was absorbing pus and producing in that way the general constitutional disturbance. He recommended that the opening into the abscess be enlarged by blunt pressure, the inner surface of the walls be scraped with a dull curette and cauterized with a 20 per cent. solution of chloride of zinc. After the opening was enlarged, two fingers were introduced into the tumor and the abdominal cavity thoroughly searched by bimanual manipulation for any possible abscesses. A small abscess was found in the thick abdominal walls, and was opened and drained. The tumor was treated as recommended

by Prof. Fenger, a larger drainage tube introduced. The temperature immediately returned to normal after this procedure, and has remained so. The tumor has gradually contracted and atrophied, the drainage tube has been shortened and made smaller, as was indicated from time to time as the cavity grew smaller, and at the present time is practically eradicated.

Dr. Martin, after a full discussion of the case by Drs. J. H. Etheridge, H. P. Newman, A. H. Burr, and L. L. McArthur, answered inquiries, and closed the debate.

Dr. S. W. Wetmore read a paper on "*The Rational Treatment of Fracture of the Clavicle*," illustrating it by adjusting his appliances to an assistant. The writer presented nothing new, but gave good descriptions of the methods devised and practiced by Drs. E. M. Moore, of Rochester, N. Y., and Lewis A. Sayre, of New York, respectively, making judicious comments on their relative advantages and disadvantages. The paper elicited remarks from Drs. R. W. Bishop, C. E. Webster, W. L. Axford, D. A. K. Steele, A. B. Strong, L. H. Montgomery, and W. H. Curtis.

The remainder of the evening was occupied by Dr. Jefferson Bettman in the reading of a carefully prepared paper on "*Rhinolithiasis*," embodying an interesting case which had occurred under the observation of the writer.

After some remarks by Dr. F. O. Stockton, the Society adjourned.

Chicago Medical Society.—Stated meeting, August 4, 1884. The President, D. A. K. Steele, M. D., in the chair. Dr. J. H. Etheridge read a graphic historical account of the treatment of cholera. Phosphorus was extensively employed before this century. Sixty years ago, calomel, opium, and venesection were the important therapeutic agents. James Johnson, in his classical work on *Tropical Diseases*, published in 1824, says,

"Start the bile, then support the powers of life." In the epidemics of 1826–27, the new remedies were carbonic acid, hydrocyanic acid, nitro-muriatic acid, chloride of gold, chloride of sodium, oxygen, arnica, buchu, purgatives, boiling hot water, cold water, counter-irritants, actual cautery, and chlorine. The epidemic of 1832–34 was a terrible one, and the list of therapeutic agents is long. Acids of all kinds, alkalies, albumen, bandaging, hot air and sand baths, vapor baths, belladonna, bile, tobacco, sulphate of copper, coffee, electricity, horseradish, transfusion, the injection into the bladder of medicated solutions, were employed in the treatment of the disease. An infusion of horseradish, calomel, and opium gained much reputation. Ice-water, intravenous injections of salines, iron, juniperberry oil, lead, lime-water, intravenous injections of milk, alcohol, turpentine, strychnia, the ligature of the extremities, croton oil, abdominal tourniquet, are also mentioned.

In 1848, anæsthetics, arsenic, camphor, capsicum, carbon disulphide, gum powder, hydrotherapy, *Perkins's tractors*, and ergot, were, in turn, remedial agents. In 1854, alcohol, chloride of calcium, eupatorium, garlic, potassium permanganate, quassia, sugar, *vaccination*, and *hard cider* were popular remedies. It was during this epidemic that B. W. Richardson, of London, advised the injection of water into the peritoneal cavity. About this time the nervous system began to receive attention from pathologists, and the nervines were introduced. Nitrite of amyl, calabar bean, coca, spinal ice-bags, hypodermic injection of water, and the dosimetric system received the attention of the profession.

In 1873, sulphurous acid, antimony, chlor-alum, were added to the list.

Dr. I. N. Danforth then discussed the Pathology of Cholera. He said that every organ of the body was more or less affected,

but that pathologico-anatomical changes in the blood, intestinal walls, and kidneys were the three uniform lesions. The blood was thickened—sometimes to currant-jelly consistence—and contained microbes.

The intestinal villi were deprived of their epithelial covering, and Peyer's were enlarged. In the alvine discharges he had found, in 1873, epithelial cells, pus, blood, and microbes. Ziegler, Cornil and Ranvier, and Labarre (?) deny the existence of these epithelial cells in *ante-mortem* discharges. The arteries supplying the intestines were constricted, while the veins were greatly distended. The intestinal walls were, therefore, in a state of intense passive congestion. The kidneys presented the changes characteristic of acute fatty degeneration. The cortical glandular cells exhibited the fatty metamorphosis first. He agreed with Ziegler, Cornil and Ranvier, and Labarre (?) that the etiological relationship of Koch's microbe was not established. Dr. Danforth's remarks were well illustrated by drawings.

Dr. W. T. Belfield was called upon for information in relation to the Germ Theory of Cholera. He said that Dr. Robert Koch had found in the intestinal walls of cholera patients in India and Egypt a microbe recognizable by its size, form, and reaction to staining fluids. The microbe had not been found in any other tissue or organ. The constant association of this microbe with cholera was established. Its casual relationship was not proved. Koch had failed to produce cholera in dogs, rabbits, cats, and white rats, by the inoculation of the cultivated bacillus. He had seen the microbes in a rapidly multiplying condition in the intestinal walls. Until human animals were placed at the experimenter's disposal, Dr. Belfield was of the opinion that positive evidence as to the *rôle* played by the cholera bacillus would be lacking. In anthrax the etiological relationship

of the anthrax bacillus had been clearly proved. In no other affection had the inoculation of cultivated bacilli produced the respective disease.

As regards the natural history of Koch's cholera microbe, it flourishes in alkaline solutions of a low degree of saturation, while acid liquids are not tolerated. It must be remembered that choleraic discharges are not usually alkaline.

Dr. John Bartlett, a member of the committee of three appointed, in 1873, to investigate the pathology of cholera, made some interesting remarks with reference to the *rôle* of the cholera bacillus. In 1874 he was engaged in experiments with "Saulsbury's ague fungus." He had observed a fungus—a cell—in a developing fluid, aggregate about itself a crystalline body, tangible and in quantities—bearing the relationship to the fungus that coral bears to the coral insect. This crystalline body in time put forth buds, which were of a green color. Presently, from these green buds, a clear protoplasmic mass was developed, which gave origin to cells, each one of which resembled the cell observed in the first place. May there not be some stage in the development of the cholera microbe when it is invisible, and at the same time functionally active?

Dr. Charles Gilman Smith made an able speech on the Prophylaxis of Cholera. He believed that the disease was highly contagious, and was accordingly surprised to hear a woman with the experience of Florence Nightingale, pronounce against the theory. The epidemic of 1854, which he had witnessed, furnished evidence sufficient to convince him that the disease was contagious, and that it was propagated by the decomposed dejecta of cholera patients. Without denying the possibility of its origin *de novo*, he knew of no recorded cases of such character. The disease, once developed, follows the line of travel. This theory was sustained by the fact that cholera was unknown

in Australia. A thorough quarantine of ships and railroads should be instituted. Of the effectiveness of a thorough quarantine he had no doubt. In the last epidemic there was a cholera focus at Butterfield and Thirtieth streets, Chicago. The vigorous measures taken in removing the inhabitants and purifying the premises had stamped out the disease.

As bearing upon the question of prophylaxis, a letter from Dr. John H. Rauch, Secretary of the State Board of Health, was read, of which the following extract is of interest:

The condition of the river, and especially of the South Fork, is a matter of the utmost importance to Chicago in the event of a cholera epidemic; and, indeed, at all times. Sixty thousand cubic feet per minute transferred from the river to the canal will keep the former clean and harmless; will prevent the possibility of pollution of the water supply at the crib; will affect sixty-six per cent. of the South Fork, and will so dilute the sewage as to make the canal unobjectionable to the communities along its banks. To secure this transfer requires two things:

1. That the pumps at Bridgeport be operated to their full capacity.

2. That the waters of the Desplaines River be prevented access to the South Fork through the Ogden Ditch.

If the Society can achieve this, it will render a most important service to Chicago, will help De Wolf in his arduous work, and earn the gratitude of one hundred and fifty miles of cities, towns, and hamlets along the canal and Illinois river.

Dr. N. S. Davis gave his experience in the epidemics of 1849, 1850, '52, '54, 1868, and 1873, on the Symptomatology and Treatment of Cholera.

Dr. Davis witnessed the epidemic of 1849 in New York city, and the others in Chicago. He did not believe in the germ-theory of the disease. In addition to an epidemic influence—whatever that might mean—there were three condi-

tions necessary to cholera, viz., a high temperature, a soil in at least a damp condition, and the presence of decomposing organic matter. He was sceptical as to the efficacy of any quarantine.

There was but one affection with which cholera could be confounded—cholera morbus. The differential diagnosis was usually not a difficult matter. In cholera, except in the height of an epidemic, there is a premonitory, painless diarrhœa, lasting from a few hours to several days. Accompanying this diarrhœa is a feeling of lassitude, weakness, general *malaise*. In cholera morbus there is no premonitory diarrhœa, but vomiting and purging occur at once, with great intestinal pain. Following the premonitory diarrhœa, in cholera, the patient complains of dizziness, and prickling sensations over the skin surface, and particularly in the extremities. Soon the patient vomits the stomachic contents; then he discharges by the mouth and anus the characteristic rice-water evacuations of cholera. After the first up and down movement, paroxysms of vomiting and purging recur every ten or twenty minutes. The amount of this choleraic discharge is very variable, but may measure half a gallon at a time. If set aside in a glass vessel, flocculi settle at the bottom of the vessel, and the turbid, supernatant fluid becomes clearer. This fluid is composed of the serous elements of the blood, epithelial scales, and bacteria. In a fatal case, the patient now literally withers; symptoms of intense, acute anæmia supervene; the skin surface is alternately bathed with cold perspiration and shrivelled up. The eyeballs shrink back into their sockets; the finger-nails are blue, the lips pallid; the tip of the nose is cold, like a dog's; the breath is distinctly cool. Intense painful cramps are felt and seen in all voluntary muscles. The muscles of the calves, thighs, and upper extremities are seized first. The

tongue is colorless, and the voice husky. The urine is entirely suppressed at an early stage of the disease.

In the height of an epidemic, the disease may run its course with frightful rapidity. In the epidemic of 1854, he had under his care a strong, healthy Scandinavian who, without any premonitory diarrhœa, was seized with serous vomiting and purging, and died three or four hours after the onset of the attack.

In cholera morbus, there is not this *ensemble* of the symptoms of acute anæmia, and the glandular secretions are not suppressed.

As regards treatment, he had few suggestions to make. In the premonitory stage, put the patient to bed at once—*when he is taken*—and treat as cholera morbus with the usual remedies when the patient commences to discharge by mouth and anus. Wait until the patient has become so exhausted by vomiting and purging that he can retch no longer, then put on the back of his tongue a powder containing one grain of calomel, one-sixth grain of morphia, and four or five grains of white sugar. He impressed upon his hearers the importance of doing this quickly, and said that it was folly to wait for stated periods to give medicines in such cases, for the chances were that a dose would be given first on the recurrence of the vomiting, and, therefore, no good would come. As an enema, he gave ten grains of acetate of lead and one-half grain of morphia, in two ounces of water, directly after a paroxysm of purging. Apply dry heat to the extremities; sinapisms alternately to belly and back. After reaction has occurred, give dilute solution of table salt and small quantities of coffee and milk.

The cramps were best treated by firm compression. Rubbing was of less value. When vomiting ceased, he had been in the

habit of giving, since 1849, small doses of the following mixture:

℞.—Carbolic acid.....gr. ¼
Tr. gelsemi.um.....♏ v
Paregoric.....f℥ ⅓
Water.....to f℥j.—M.

The thanks of the Society were tendered the venerable head of Mercy Hospital, and it was resolved to continue the discussion of the treatment of cholera at the meeting two weeks hence.

Regular meeting, August 18, 1884, D. A. K. Steele, M. D., President, and L. H. Montgomery, M. D., Secretary.

The first paper read was by Dr. P. C. Jensen, "On Cutaneous Therapeutics." After alluding to the histological and physiological relations of the skin and the internal secreting organs, including the mucous membranes, the writer discussed the question of cutaneous absorption, alluding to experiments in which limbs had been immersed in various solutions for weeks without any evidence of absorption. On the other hand, he quoted Bichat as authority for saying that when the cutaneous surface of a limb is immersed in putrid gases, absorption takes place, and the poison is subsequently eliminated by the bowels. He claimed that the rate and degree of absorption of any medicine depends largely upon its power of diffusion. Physiologically he regarded the skin as a "colloid septum, on one side of which lie the blood-vessels containing an alkaline fluid, while an acid is on the other side; a condition most favorable for osmosis." He quoted Waller to show that alkaloids dissolved in chloroform were readily absorbed from the cutaneous surface, while the same substances, dissolved in alcohol, were taken up very slowly or not at all.

He then gave systematically the objects and methods of local treatment in diseases of the skin, including a considerable number of formulæ, but which we must omit for want of space.

Dr. C. W. Earle read a short paper on the Management of the Summer Diseases of Children, of which we can give only the following conclusions:

1. The most frequent infantile disease in the city during the summer months is entero-colitis.

2. Excluding causes of infantile mortality largely beyond our control, improper feeding is one of the chief causes of the great number of deaths among this class.

3. Mothers should nurse their children. In lieu of this, a wet nurse should be procured. If this is impossible, a mixed diet is preferable, and, lastly, artificial diet must be resorted to.

4. Artificial foods containing considerable caseine are found to be a cause of indigestion and summer diseases.

5. In many cases cows' milk diluted with water does not seem to agree with children. Barley water, or rice water, as the diluent, seems to make a more physiological food.

6. Condensed milk seems to agree with a considerable number of children, but, in many cases, a sufficient quantity is not used to nourish a child. Used in proper quantities and diluted with rice or barley water, it is, without doubt, one of the best artificial foods.

7. Cream, mutton broth, and white of egg are valuable adjuvants to the dietary of infants.

8. Whatever the artificial food a child is having, the physician should examine frequently for evidences that it is a proper food as regards quality and quantity. The normal elevation of the fontanelles and increasing weight are among the conditions denoting a satisfactory and favorable nutrition.

The remainder of the evening was spent in discussing the subject suggested by the paper of Dr. Earle.

Stated meeting, 1st September, 1884, the President, Dr. D. A. K. Steele in the chair.

"Remarks on Aneurisms," by Dr. J. A. Robinson; "The Recent Treatment of Asiatic Cholera, as in vogue among European Surgeons of Late Years, in Southern India," by Dr. H. Martyn Scudder.

Dr. J. A. Robinson read a paper entitled, "Remarks on Aneurisms," and exhibited a specimen of an aneurism of the arch of the aorta, involving the aortic valves. The following abstract, which has been prepared by the secretary, we append. We omit the etiology, pathology, and diagnosis of aneurisms, and proceed to the general principles governing their treatment, which have been to prohibit the patient from taking much exercise, to secure, as nearly as possible, absolute rest, and to restrict the diet. Where the heart has been tumultuous, cardiac sedatives have been exhibited. Such symptoms as dyspnœa and pain have been met with appropriate palliatives. The first attempt at specific treatment for internal aneurisms was employed many years since by Albertini and Valsalva, and has been known as Valsalva's method. It consists in weakening the patient by repeated blood-lettings, and by gradually diminishing his meat and drink till only half a pound of pudding is taken morning and evening, with only a measured quantity of water; so that at last the patient is so exhausted he can not lift his hand from the bed in which he is ordered to lie from the commencement of the treatment. When this stage is reached, the amount of nutriment is increased until the patient's strength is restored. It is needless to say that this plan of treatment did not yield the beneficial results which were anticipated. In our day it would be regarded

as barbarous, were we to try and enforce it to the extreme which Valsalva reached. A modification of this treatment, consisting of enforcing absolute rest in bed, and diminishing the food and drink, so as to diminish the quantity, but not the physiological quality, of the blood, has benefited a number of cases, if not entirely cured them. While some physicians have refused to employ the depleting treatment, they have resorted to measures fully as severe. Dr. Murchison and Mr. Moore, of England, have recommended, and in one case tried, the introduction of fine wire into the aneurismal sac, on the theory that the large amount of surface exposed to the circulating fluid would produce coagulation of the fibrin. In the case referred to, they introduced twenty-six yards of fine iron wire into the aneurismal sac, and it is needless to say that the treatment was unsuccessful, although they contend that the result obtained demonstrated that the principle was sound, and that further experiments were justifiable. A much less dangerous, and probly more efficient mode of treatment is by electrolysis. Pravaz was the first to use electrolysis for reducing external aneurisms, and Cinicelli and others have applied it to internal aneurisms, but with very different results. Its employment has been extended to thoracic and abdominal aneurisms, but, in eight cases of thoracic aneurisms, only one was benefited, the other attempts being unsuccessful. Only one case of abdominal aneurism was cured, and this patient died from rupture of the sac, on account of premature exertion. The results obtained from the use of the galvano-puncture have not justified us in expecting to hope for much from that method. Professor Langenbeck has published accounts of two cases which he claimed to cure by hypodermic injections of one-half to three grains of Bonjean's watery extract of ergot every three days. Balfour says he has tried this method frequently, but

without any success, although he was positive that his ergot was active.

Pressure, as a mode of treatment, is wholly inapplicable to thoracic aneurisms, and rarely to abdominal. Dr. Murray records a case of abdominal aneurism in which pressure on the aorta for five hours, the patient being under chloroform, was successful.

We will now speak of the treatment of internal aneurisms by the administration of the iodide of potassium. It is conceded by Flint and Bramwell, and insisted on by Balfour, that the iodide of potassium is the only drug which offers any hope of cure, and that in every case it will relieve the distressing symptoms, if it does not effect a cure. Balfour says: "Of all the various modes of treating internal aneurism, there is not one hitherto mentioned which is not attended with considerable risk or danger, except Mr. Tufnell's plan of perfect rest, while the advantages to be derived from some of them are, to say the least, very problematical. But the treatment by the iodide of potassium, of which the author now writes, is perfectly safe and free from all risks, and it is equally certain to afford relief; at least no case has been yet found where relief was not attained, though, naturally enough, that relief is not always instantaneous, but requires the treatment to be continued for some time. It also relieves the pain and other symptoms of aneurism more rapidly and more effectually than any other treatment, apart, even from the powerful agency of the recumbent posture; and for the time it has been in use it has given greater and more permanent relief to a larger number of cases of aneurism than any other mode of treatment whatever. Indeed, the relief to the pain and other symptoms is so great and so speedily obtained, usually from the action of the drug alone, that it is often difficult to get the patient to sub-

mit to any restrictions; besides, it is not always necessary. The author has employed this method of treatment during the last eight years in a very considerable number of cases, with unvarying success, so far as the relief to symptoms is concerned, and with such favorable results as to retarding the farther progress of the case, and even, in some cases, promoting an apparent cure, as certainly to stamp this treatment as one of the most efficient hitherto propounded for the relief of this intractable complaint.

Balfour relates the history of twelve cases treated by this method, with the following results: The symptoms, such as pain, dyspnœa, etc., were relieved in every case; the physical signs of aneurism were diminished in seven cases; pulsation of the tumor ceased in two cases, diminished in four, and was not apparent from the commencement in six. The aneurismal tumor disappeared in three cases and diminished in five; the bruit disappeared in two cases and diminished in two cases, but never existed in two cases. Five of the patients were so relieved that they could work, four were discharged at their own request, feeling well, one patient absconded, and the result of treatment in his case is not known. Five cases were termed cured, and seven were not cured, but relieved. One of the twelve cases referred to was an aneurism of the innominate artery, which was cured, and Balfour claims to have cured several cases of aneurism of this artery. One of the four patients discharged at their own request was under treatment three different times, being discharged twice at his own request, but died suddenly while under the third course of treatment, the autopsy revealing an aneurism of the aorta, which had ruptured into the lower lobe of the right lung. One of the twelve cases was diagnosticated as a weeping aneurism, implicating the origin of the left carotid, and communicating by a small

opening with the left bronchus, the patient, on admission, expectorating arterial blood, but this soon ceased, and the patient was discharged cured. While the writer did not believe he was justified in being as enthusiastic in the praise of the iodide of potassium treatment as Balfour, he did believe he was justified in relating the following case, and giving the iodide of potassium the credit of prolonging the patient's life and making his life comparatively comfortable.

John H. C., aged 40, a blacksmith, was first seen in March, 1883. Had had attacks of inflammatory rheumatism several years ago. In February, 1883, was attacked with severe pains in the chest, in the præcordial region, and was treated by his physician for rheumatism for some weeks. Dr. J. P. Ross saw him and diagnosed aneurism of the aorta. At this time he had a good deal of dyspnœa, some hoarseness of the voice, and quite a little difficulty in swallowing solid food. When fatigued, the pains in his chest were excruciating. No tumor was perceptible, although there was pulsation in the upper sternal region and dullness upon percussion over the area of pulsation. Two months afterwards there was a swelling in the upper sternal region at the junction of the left first and second ribs, about the size of a silver dollar. A very slight bruit was heard. The voice was very husky, and the difficulty of deglutition had increased until now the patient could take no solid food whatever. He had emaciated, and was losing strength very rapidly. He was ordered to lie in bed continuously, and was given 15 grains of the iodide of potassium three times daily, gradually increasing the dose until signs of iodism appeared. It was truly remarkable how soon after this plan of treatment was inaugurated the patient expressed himself free from pain and the distressing symptoms from which he had suffered. He persevered this way until May, when he said he was so well and

weary of the bed he would like to sit up. Leave was granted. A few weeks after, the writer was surprised to see him walk into his office. The patient complained of nothing. He was cautioned against such experiments, and he was told to return home and take better care of himself. His condition at this date was as follows: The continued pulsation of the tumor against the chest-wall had produced absorption of a large portion of the manubrium and an inch of the inner portion of the left first and second ribs. Consequently there could be felt the pulsations of the tumor through the chest-walls at a point where only soft tissues intervened. No bruit was discernible. On laryngoscopic examination we found complete paralysis of the left vocal cord. His voice was anserinous. During all these months he had been taking the iodide of potassium without any disturbing effects, until now, when he complained of symptoms of iodism. He was permitted to discontinue its use. From the date of this office visit he grew rapidly worse. He rapidly emaciated, dyspnœa and dysphagia increased, and finally he died of asthenia, July 19, 1884, about 17 months after he began treatment.

Autopsy.—On opening the thorax a large aneurismal tumor was seen behind the sternum, about five inches in diameter. Friable adhesions of the sac to the sternum were broken up when the sternum was removed. Absorption of a large portion of the sternum and the left first and second ribs had taken place. Heart and pericardium were normal. Adhesions between the aneurismal sac and the left lung. The left lung was pressed upward and backward into the left plural cavity, and collapsed. On opening the heart the aortic valves found roughened. Extending the incision into the arch of the aorta, find it dilated, and at the anterior of the arch, between the origin of the innominate and the left carotid arteries, an opening, oval in form,

one inch by one inch and a half, into the sac of the aneurism. Through this opening the walls of the aorta were continuous, forming the wall of the aneurism. The tumor was firm, being composed of coagulated fibrine, and was then shown. Dr. Robison answered a number of informal inquiries relative to it, when Dr. John Bartlett cited briefly the history of a case of general chronic bronchitis and asthma, occurring in a man 70 years of age, who was supposed to be suffering from consumption for 50 years. Eight years ago, when the patient came under his observation, he ordered him to take eight grains of iodide of potassium three times a day. He has not omitted a day since to take the medicine, and he has steadily improved, his kidneys have performed their natural function, his appetite has not been impaired, and he has grown fatter and stronger. The case is an illustration how long a patient may take iodide of potassium continuously without injury to the mucous membrane of the stomach or injury to the kidneys.

These remarks were followed by the reading of a paper, entitled, "The Recent Treatment of Asiatic Cholera as in vogue among European Surgeons of late years in Southern India," by Dr. H. M. Scudder.

"I would not think of rising in the presence of so many of my seniors to give my views on the important subject of the treatment of cholera, if it had not been my fortune (or misfortune many might term it) to pass through four epidemics during my practice in India, where I labored for nine (9) years as a purely medical missionary. In the course of these epidemics I was called upon to treat a large number of cases, as I was at the head of a large hospital, supported by the English Government, and was the only European physician in a large town of nearly fifty thousand (50,000) inhabitants. During the famine of 1877 and 1878 I was placed in medical charge of a large relief camp, which frequently contained over five thousand (5,000) persons, and where I had two fairly trained

native doctors to assist me. In 1878 the cholera broke out in this relief camp and raged as an epidemic for several months; the number of deaths in the camp often exceeding fifty (50) per diem. As it is now almost time to adjourn, I shall only touch upon a few points, outlining the form of treatment pursued of late years by many of the surgeons in India. For purposes of treatment I would divide the course of the disease into the following stages: A prodromic stage, a stage of diarrhœa, a stage of invasion, a stage of collapse, and a stage of reaction.

"In the prodromic stage, manifested by malaise, chilliness, depression of spirits, nausea, and abdominal discomfort, give ten or fifteen-drop doses of spirits of camphor, in dessert-spoonfuls of hot brandy, but be very careful not to give any considerable quantity of stimulants. As soon as the stage of diarrhœa begins, the administration of some preparation of opium, together with aromatics of camphor and a little chloroform is called for. Two parts of chloroform to one of spirits of camphor, is a very good combination; thirty drops for a dose. To be repeated as required. An equally serviceable one consists of equal parts of spirits chloroform, spirits camphor, laudanum, aromatic tincture of rhubarb and tincture of ginger. Teaspoonful doses every hour or two, until four or five doses have been given. In alternation, also, with either of these, a mixture of aromatic sulphuric acid and tincture of opium may be given with benefit. As soon as frequent vomiting commences and the stage of invasion becomes established, these combinations containing opium had better be discontinued, and in their stead, simple mixtures of aromatics, chloroform and hydrocyanic acid be administered by the mouth, to check vomiting, and enemas of acetate of lead given per rectum, while at the same time we resort to the administration of morphine, or morphine combined with chloral hydrate, by hypodermic injection.

"The patient should be kept perfectly quiet, covered with heated blankets, and dry heat applied to the surface of the body, especially to the extremities, by means of hot bottles,

heated flat-irons, etc. The hypodermic use of morphine and chloral is, of course, contra-indicated when the stage of collapse has become well developed. During the stage of collapse it is essential that the patient be kept in the horizontal position. No violent rubbing should be allowed, but I have found it beneficial to gently rub the limbs and extremities with hot oil. *Very small* quantities of alcoholic stimulants are useful in this stage, but they should be given with great caution, lest vomiting should be provoked. Stimulant enemas may also be given.

"When the stomach is intolerant it is often better to inject small quantities hypodermically; experience teaches us, however, that anything like the free use of alcoholic stimulants is uncalled for and exceedingly harmful. I have sometimes found small doses of both atropia and strychnia, administered by hypodermic injection, apparently effectual in bringing about reaction. I have tried the intravenous administration of milk and salines in twenty-four cases, with only four recoveries. The reaction thus induced is generally not permanent, so I have been induced to abandon this method. I believe the impregnation of the air of the room with sulphurous acid by the burning of sulphur is a useful adjuvant in the treatment of cholera, and think it decreases the liability of the disease being propagated or contracted by the attendants. I see it is time for me to close, and will, therefore, not go into treatment of the stage of reaction and the further after treatment of the patient." In answer to a question, Dr. Scudder replied, "I consider that cholera is an infectious disease, and also somewhat contagious, though not highly contagious or readily communicable by personal association with the sick, as is the case with small pox or measles. The noxious power of the cholera germ, or virus (whether it is Dr. Koch's microbe or something else), seems to be more powerfully exerted some time after it has escaped from the body of the patient than when it is freshly passed. Careful observation and experience, the world over, seems to establish this fact. Whether the disease is contagious or highly contagious, however, seems still to be the vexed question, and remains

yet to be decided. My personal experience in four epidemics and the careful study of other Indian epidemics has led me to believe that the attendants and those who come into frequent and close contact with cholera patients are somewhat more apt to contract the disease than those who do not."

Dr. Scudder's paper elicited a lively discussion, in which Dr. John Bartlett, J. H. Etheridge, R. E. Starkweather, D. O'Shea, G. Newkirk, G. C. Paoli participated.

Dr. Scudder, in closing the debate, said, first, as to the per cent. of recoveries where the epidemic was severe, it was 20 or 30 per cent., or the percentage of deaths ranged from 80 to 90 per cent. where the epidemic was very severe. If the cases were seen early the fatality ranged from 40 to 50 per cent. In the sheds where cases were treated by fumes of sulphurous gas in the premises, nearly half the cases might be saved, whereas, in one shed in the relief camp, containing 20 cases, where exactly similar conditions were present, where fumigation was omitted, 80 per cent. died.

In India the natives would not drink well-water. Their religion was the cause of frequent visitations of cholera, for it taught them to drink only that which descended from heaven. The result was, they drank surface water, or that which was stored in tanks near the temples of Lateran, which they consider as sacred. In contrast to the natives of India were the Chinese and Japanese, because they drank well-water, and used the garbage and human offal to fructify the fields, and they were comparatively free from cholera. The Indians would not remove excrement and offal, neither did they cover it up, and when the rain descended, which amounted to 8 or 10 inches sometimes a night, the water became polluted. The speaker did not see that any benefits would be derived by people running away from a district in which cholera was epidemic. General panic predisposes to the disease, and fright

had much to do with its fatality. In India the poisoning of persons afflicted with cholera by arsenic was frequent, and is largely undetected by the police. To warn the community, as one gentleman has alluded to, is an extensive topic. If the early known methods of checking it were resorted to, cholera would not become epidemic. The Indians are greatly prejudiced against European medicines, but, singularly enough, not so with European surgery, presumably because there are no native surgeons in India.

No European would travel without a bottle of camphor, and the English are always provided with a flask of brandy. The Europeans are well up in the use of preventive measures, and they would be sure, also, to be provided with chlorodyne, which is no longer a secret remedy.

LISTON H. MONTGOMERY, M.D., *Sec'y.*

CHICAGO PATHOLOGICAL SOCIETY. *Feb. 11, 1884. Regular Meeting.*

The Society was called to order by the President, Dr. Angear.

The minutes of the two last meetings were read and approved.

Dr. J. D. Skeer was unanimously elected to membership.

The names of Dr. Sarah Millen, West Liberty, Iowa, and Dr. McCullough, of Randolph and Halsted streets, were proposed by Drs. Angear and Tebbetts.

Dr. E. L. Holmes was elected Censor, to serve the remainder of the year, vice Dr. Walker, resigned.

The Society then being in readiness for work, Dr. E. L. Holmes presented a specimen of melanotic sarcoma of the eye. Also a large melanotic sarcoma of the upper retro-tarsal fold of the left conjunctiva.

The first had been diagnosticated by an opthalmoscopic examination of the right eye of Mr. ——, forty-one years of age, who was in excellent health, and presented no external evidence of the slightest disease of the eye. At the outer and lower part of the globe was a dark mass, beneath the retina, extending into the vitreous.

The patient had discovered a loss of sight in a part of his field of vision about six weeks before this examination, which was made late in November. Seven weeks after this, the second stages in the development of such tumors had supervened. These were characterized by pain, redness of the conjunctiva, increased hardness of the globe, further detachment of the retina, and dilatation of the pupil.

Enucleation of the globe, which had been advised at the first, was no longer rejected by the patient.

Bisection of the globe revealed the base of the tumor, extending from near the ciliary region in front to within a quarter of an inch of the optic disc. Upon this base was situated a smaller but higher portion with abrupt walls, which projected half an inch toward the center of the globe; the remaining portion of the eye was filled with a thin dark brown fluid, and a very small remnant of vitreous humor.

These tumors are usually composed of small round or spindle cells, and are quite malignant. The average duration of life is said to be four years. The recurrence of the growth is more frequent in the liver, or other internal organs, than in the orbit. Dr. Holmes stated that he had known several patients who had lived in apparent good health longer than this period, after the enucleation.

Mr. T., a German, 66 years of age, recently consulted Dr. Holmes for an inflammation of the left eye. A careless examination and a careless eversion of the upper lid simply revealed

a chronic conjunctivitis, with considerable roughness; this had existed a year.

A swelling of the upper lid had been observed during the last three months. By pressure on the upper portion of the lid, a large, black pedunculated tumor, three quarters of an inch in diameter, and a quarter of an inch thick, was made to protrude between the everted upper lid and globe.

By means of a ligature around the base of this growth, it could be drawn down in such a manner that its attachment to the conjunctiva at the retro-tarsal fold could be easily examined.

The conjunctiva thus tied and put upon the stretch by the ligature was readily divided so far from the tumor as to ensure apparently complete removal of all diseased tissue. The specimen shows a well defined tumor at its base, resting in the conjunctiva, without the slightest mutilation by the operation. Each tumor is rich in dark brown pigment Neither patient has a history of heredity.

The Society then proceeded to the discussion of "Therapeutics of Malarial Diseases."

Dr. E. L. Holmes opened the discussion by sketching the history of an obscure case of eye-trouble, caused by malaria, and cured by five-grain doses of quinine three times a day for two days.

Cases of tinnitus aurium had experienced no relief until large doses of quinine had been given.

Iritis simulates malarial eye trouble, but quinine, though often given, does no good.

The peculiarity about the pain in iritis is to come on about four in the morning. In all painful affections of the eye, where other remedies do but little good, give quinine.

Dr. Avery, continuing the discussion, stated that in certain

severe cases of conjunctivitis, when applications had not relieved, quinine would both relieve and cure.

Dr. Haven had employed quinine as a sheet-anchor. With insane patients in the Wisconsin district, where he once resided, an attack of malaria seemed to hasten an attack of periodical insanity, and curing malarial complications relieved mental difficulty. Combined Fowler's solution with quinine, also a cold bath to reduce the temperature.

Dr. A. Lagorio considered quinine the chief remedy; many try substitutes, but return to the former,

An Italian physician some time ago advocated lemon-juice in decoction. Dr. L. had tried it faithfully and found it influenced the disease, but has had to return to quinine to complete a cure.

In Italy, also, electricity is much in vogue; considered it good when combined with tonics and quinine. Oil of eucalyptus and piperin, they use these also. Cures frequently. The eucalyptus tree, planted in the Roman Campagna, has changed an entire district from a deadly, uninhabitable tract in 1868 to a healthy and valuable locality. There is less fever there than is commonly found in Italy. Dr. L. had used eucalyptus oil between the attacks. In a case of a man with a very large spleen, had given quinine and carbonate iron; spleen normal in two months.

Dr. Bucher stated that in four of cases pernicious remittent fever, in which quinine seemed perfectly useless, the hot pack alone had relieved.

In a case of asthma, in which nothing relieved, he gave five grains of quinine, with the patient easy in ten minutes, and subsequent attacks were always thus relieved.

Dextro-quinine in double doses produces no ringing and other bad effects.

Dr. E. H. Root confirmed the efficacy of the hot water pack in malarial disease. The president, Dr. Angear, in a few remarks as to the real nature of malarial disease, whether of nervous origin or caused by bacteria, etc., quoted Watson's early edition, in the matter of deception of the patient, as to time of day when expecting at a certain hour a chill, and his consequent cure without medication.

The discussion being brought to its final conclusion by the lateness of the hour, the society, on motion, adjourned.

J. H. TIBBETTS, *Secretary.*

Park Institute, Feb. 11, 1884.

March 10, 1884. Regular meeting.

The society was called to order by Dr. Avery, the president, Dr. Angear, being absent.

The minutes of the last meeting were read and approved.

The society then unanimously elected to membership Drs. Sarah Millen, W. Liberty, Ia., and Dr. McCullough, Chicago.

Dr. E. P. Murdock then reported an interesting case, and presented the specimen of a fœtus, 7th mo., with the following history: The labor was a normal one, together with the presentation, the afterbirth being extremely small, and no liquor amnii.

Examination of the fœtus showed a double hare-lip, there being no articulation between the maxillary and inter-maxillary bones, and a deficient articulation of the ethmoid with the frontal, the occipital bone being absent, and the cerebellum lying outside the skull. No family history could be obtained of any consequence; the mother, an Irish Canadian, age 24, had enjoyed good health, had not been frightened in any way. Father, a Norwegian of good family history. Parents are

usually able to assign some cause, imaginary or not, but not in this case. For years the subject of maternal impressions had been under discussion both among the laity and in the profession. Dr. Murdock, after many experiments upon eggs, painting, staining, varnishing, and placing them under peculiar conditions, had only negative results, and all authority was decisive that all such malformations as the one now shown are entirely independent of maternal impressions. The greatest number of abnormalities are found to occur in the brain and heart, especially in the lower orders of animals, where maternal impressions could not occur; sheep are frequently born headless, and monstrosities are of the most common occurrence in that family.

Among pigs the inter-maxillary bone is often deficient, and single-eyed pigs are very frequently seen.

In the human family duplex monsters are most frequent, and are never of opposite sex in any instance. Union of double monsters always extends to vital organs. In the Siamese twins the livers joined, and the abdominal cavities were directly connected.

In 1869, upon examination of Millie Christine, Dr. Murdock found the bodies joined at the tenth dorsal vertebra, the abdominal cavities united, one pelvic arch and four lower extremities; one set of arms, one vagina, and probably one uterus.

The proportion of sex in duplex monsters is largely the female, being four to one.

In monsters showing lack of development, that of the upper extremities is very common, and of the upper portion of the body in the median line.

In conclusion, Dr. Murdock spoke briefly of his great interest in the subject, and hoped to hear others speak of cases.

Dr. Campbell then reported a case which almost created a belief in maternal impressions, of a child born in normal labor, the pregnancy having also been normal, weighing at birth three and one half pounds, the head undeveloped, hair growing down to the eyes, which were closed, arms flexed, no hands, but rudimentary fingers on the wrists, toes webbed; it sucked and lived five months. The assigned cause of this montrosity as given by the mother was as follows: During the early part of pregnancy, while driving with her clergyman, who had a deformed arm similar in appearance to that of the monster, the horse ran away and frightened the lady, who sat rigid a long time, with arms flexed, watching the minister's hands.

Dr. Taggert thought that in all such cases no mother could tell where deformity would be; frights were of common occurrence in cities; marking must come in the ovum before impregnated, or in the spermatozoa.

Dr. Murdock then said that it was now established that the fœtus was wholly disconnected from the mother during gestation, and that the placenta was only a gland secreting vitalizing fluid. The child nurses through the umbilical cord in utero, and is no more liable to maternal impressions than a nursing child already born would be to the same impressions. There was no vascular connection between mother and child, no osmosis between the capillaries, but the placenta secretes fluid which nourishes the child. Shock and fright are afterthoughts, as stated by Dr. Taggert. Mothers almost universally expect deformity, or fear it, but such deformity is the rarest thing in the world. Nervous shocks may produce miscarriage, stopping development and throwing it off. There are no nerve filaments connecting child and mother. A lady had eight children, all deficient, and all had undeveloped bones in mesial line; all were still-born, or nearly so.

A man having had three wives all the children had extra thumbs, an excess of development.

Agassiz found in the embryo of fish a bifurcation which developed into two-tailed fish, an excess of development common in fishes. Their ova commonly show either deficient or excessive development, and in the spermatozoa of man deficiency of development has been noted by microscopic examination, but it would be impossible to prove that they would so develop.

Amalgamated races are more liable to deformity. In birds, while in their native state, no deformity can be found, and in 3600 specimens, prepared by the orator for the Smithsonian Institute, no deformity was observed, but in hybrid birds it is quite frequently met with, so much so that reproduction may become impossible.

Dr. Avery, in closing the discussion, expressed his interest in the specimen and cases reported. Peculiarities in the father, he had noticed, were frequently maintained among offspring. A gentleman in town has several boys, all of whom have very crooked little fingers, like the father, while the girls have not.

Dr. Murdock would inquire of the society in relation to certain cases seen lately in obstetric practice,—deep bilateral cervical lacerations. In one case, woman had pains forty-eight ours, examination showed no dilatation, but all subjective symptoms were present.

Dr. Avery asked his treatment in such cases. Reply, gave hypnotics, Battles' bromidia, viburnum, etc.

Dr. Taggert had one such case, lately, of bilateral laceration, in which false pains set in and stopped; he thought such cases were more apt to miscarry.

Dr. Murdock had not found laceration to interfere with impregnation; cervical catarrh, if present, should be relieved, then impregnation occurs; wished at some future time to have the subject brought up for consideration.

Dr. Avery thought that in very many cases of labor, false pains simulated impending labor.

Dr. Murdock replied that in all such cases he had found some injury, cervical, or otherwise.

Dr. Dobbin then reported a case with the following history: Last September was called to see a woman flowing freely, and had been, at intervals, for about seven months. The assigned cause was a fall, and a serous discharge preceded the hæmorrhage. On examination, found the os open enough to admit three fingers, and hæmorrhage free, with apparently some new growth in the cervical canal, though the examination was not a thorough one. After tamponing the vagina, the flowing ceased and the os was found nearly closed. The cervix was involved in a nodulated growth. There was no odor, but very intense pain. Emaciation was marked, but hæmorrhage remained slight. Dr. Byford, in consultation, advised ergot, and the hardened cervix seemed lately softer and smaller. The tumor surrounded the whole os, and was larger posteriorly. The body was normal in size.

Dr. Murdock thought the history indicated epithelioma; the odor being absent, did not exclude epithelioma.

Dr. Dobbin then stated that the case was so diagnosed by Dr. Byford, but thought the ergot was doing good.

Dr. Murdock thought that Dr. Byford was very enthusiastic on the subject of ergot; it might aid by cutting off the blood supply; he had found that iodized phenol gave the most relief from pain, iodine in carbolic acid, acting as a local anæsthetic.

A case seen at the Dispensary had the following history:

First seen, October, 1882; examination revealed a large intra-mural fibroid and several fibromata. Length of canal, five and one-half inches. The case was also seen by Dr. Jack-

son. The woman had been treated nine years without benefit. A marked peculiarity of the case was that there had been no menorrhagia, but considerable pain. Treated by acetate of ammonium, varied by iodide of potassium and ammonium.

The general system was attended to by tonics, etc., and the tumor had gradually grown smaller, until at present about the size of an orange.

Present, about twelve members and several visitors. The society, on motion, adjourned.

J. H. TEBBETS, *Secretary.*

A MEDICAL DEPARTMENT IN THE CHICAGO PUBLIC LIBRARY.

The Chicago Medical Society wishes to inform the profession that, through its efforts and those of physicians of Cook county, there are 1,200 bound volumes of medical books in the Chicago Public Library ready to be consulted by the profession.

The majority of these works have been recently purchased, and are, in fact, a carefully chosen collection of the best known *recent* medical authorities in English, French and German languages.

This is an initiatory movement toward founding a large medical library in the Northwest, a project in which the whole profession is assumed to take an active interest, and toward which subscriptions of books and money will be collected annually. Moderate yearly additions will soon build up a library in Chicago second only to that of the Surgeon General.

The first year's purchase has included most of standard works on the leading specialties (including dental surgery) and also some works on pharmacy. All these works have been donated outright to the library authorities and will be perpetually cared for and kept on reference by them.

The funds for the purchase consisted of an appropriation of $500 from the society treasury, supplemented by voluntary contributions from the physicians, dentists and druggists of Cook county.

Valuable gifts of old works were also received from some practitioners and deceased physicians' families.

Physicians will find this collection located in the southeast corner of the south room on the upper floor of the library building, where a large table and chairs have been provided for their convenience.

By agreement with Mr. Poole, the books will not be loaned out, but kept in the reference list for consultation, so as always to be found when required. The librarian of the upper floor will show the way to those desiring to consult the books.

There also will be found a good representation of foreign and American medical journals, which will be found catalogued at the librarians counter.

A large and valuable collection of old journals is not yet on the shelves, for lack of money to bind them. Most of these were presented by Dr. Vincent L. Hurlbut.

EDMUND ANDREWS, M. D.,
F. C. HOTZ, M. D.,
DAVID GRAHAM, M. D.,
Com. on Library Chi. Med. Soc.

CHICAGO, Ill., September 16, 1884.

To the Editors of the CHICAGO MEDICAL JOURNAL AND EXAMINER:

The Floating Hospital Association, in making their annual report, desire to thank those who have so generously provided the means for their summer work.

The first boat was sent out to the pier on Monday, July 7th, and the season was continued to and included Friday, September 12th, a period of ten weeks—the longest in our history; 21,489 persons were cared for during this time.

$1,761.71 have been received, $1.428.00 have been expended, $333.71 we have now on hand, which it is proposed to use in the purchase of new hammocks, and other necessaries, made imperative by the very decided increase in the attendance from year to year. It was feared at one time during the summer that we might not be able to go on, but the very liberal support given us by members of the Board of Trade and other constant friends, placed the matter beyond doubt. No accident of any kind occurred, and nothing has marred the success of the work. For ice and milk we are indebted, as we have always been, to the kindness of the respective dealers.

JOS. STOCKTON, President. C. L. RUTTER, Secretary.

List of Donations other than Cash, Season of 1884.—Coal, Robert Law; ice, Washington Ice Co., A. S. Piper & Co., E. A. Shedd & Co., H. P. Smith & Co.; crackers, for the whole season, H. H. Kohlsaat; milk, Kee & Chapell, J. J. Solon, William C. Hill, Duff Brothers, D. McCarthy, —— Fisher, W. Adams; sundries, Edwin Heywood.

CORRESPONDENCE.

LETTER FROM ITALY.

Messrs. Editors:—I take pleasure in sending for the benefit of your readers a brief report on cholera, which is everywhere about us. The cholera microbe, after bringing desolation, misery, and death to hundreds of peaceful homes in our neighboring cities of Toulon and Marseilles, has truly overleaped the quarantine, defied military cordons, and made its grand entrance upon our beautiful Riviera. Bravely have the Italian authorities fought against this germ, but in spite of their one hundred-ton Krupp guns, their two hundred and fifty thousand soldiers, their phenic acid, their chlorides, etc., they have lost the battle. Strict quarantines and plenty of fumigation have been of no avail; hundreds of our gay cities are infected by the epidemic; and even our beautiful Naples has succumbed; the last bulletin announcing to us the awful news that over five hundred were stricken down in this southern city alone, during the past twenty-four hours. What is it? What is the cause? What is to be done? is the general cry. A grand opportunity is offered for study and observation. The researches of Strauss and Roux (*Riv. Clin. e Terap.*) made in Toulon, have been a continuation of those instituted in Egypt last year with Thuiller and Nocard. From the first autopsy they have been enabled to confirm the identity of the lesions observed in the epidemic in Egypt. While there, Strauss and his collaborators attempted to find in the walls of the intes-

tines a specific microbe. Their method consisted in coloring fragments of intestines, hardened in alcohol, with a solution of blue methylene. They saw in the superficial portions of the mucous membrane several micro-organisms, in variable number. The bacilli were numerous and variable, in aspect and dimensions. It was impossible for them to draw any positive conclusions, from these anatomical results, as to the cause of the disease. In Toulon they again attempted to find a specific organism in the intestinal walls. According to Koch, the cholera was characterized in Egypt, as in India, by the constant presence of a characteristic bacillus in the mucous membrane of the small intestines. The new observations of Strauss and Roux, in Toulon, confirm those observed in Egypt. In rapidly fatal cases the organisms were found in less quantity, and in some it was impossible to observe any. In some of his communications from Calcutta, Koch gives more accurate details of the organism, which he believes to be the cause of cholera; he describes the bacillus as not straight, but more or less curved, at times comma-shape, or semicircular. To show this microbe, Koch does not use any special process of coloring; he takes a small part of a dejection or of intestinal mucous, and places it on a slide; this preparation is slightly warmed, and colored with an aqueous concentrated solution of aniline,—he prefers it to the blue methylene.

The intestinal contents, taken from a cadaver in the best of conditions, show, in the greatest number of cases, various species of micro-organisms, among which is found the comma-bacillus. Koch has made several culture experiments with this bacillus. A small portion of the intestinal contents is diluted with a few cubic centimeters of gelatine tea; this is poured on a slide and allowed to cool and thicken. Among the developed organisms there are some presenting the aspect of small

retracted pieces; they are formed by the comma-shaped organisms, which, under the microscope, seem to perform rapid movements. These organisms, during their vegetation, at times remain united by the ends, showing an S shape. Koch believes this subject of culture in the gelatine tea to be characteristic. The comma-bacillus needs an alkaline fluid for its development, and a temperature of 16° to 42° C.; a dessication of only a few hours destroys it. Now, can we believe this comma-shaped microbe to be the true organism of cholera? Not until we can produce the identical disease with the aid of these bacilli only. Koch supports his discovery by stating that this bacillus has never been found in a healthy body, nor in bodies dead from other diseases.

The members of Pasteur's Mission, in Egypt, discovered some extremely fine particles, suggesting an organism, in the blood of choleric patients. These are due to an alteration of the hæmoglobin.

According to Hayem, the following ought to be the therapeutics of cholera: For the premonitory diarrhœa, he advises opium; above all, hypodermic injections of morphine; the black sulphide of mercury, or the salicylate of bismuth; ice, etc., according to the case. During the stage of collapse there is only one indication: to replace the enormous loss of water and chloride of sodium ejected from the intestinal canal. He believes that there ought to be again experiments on a large scale, by the intravenous injections of distilled water, every 1000 grams containing 5 grams of chloride of sodium, 1 gram of hydrate of sodium, and 25 grams of sulphate of sodium.

This operation is called hypodermoclisis, and is at present largely tried in Naples, I am pleased to state, with the happiest results. The credit of this method of treatment is really due to Prof. Cantam, who describes it in his work on Thera-

peutics (Vol. I, page 115, 1867). His solution is as follows: 1000 grams of water, 4 grams of common salt, and 3 grams of carbonate of sodium. The temperature of the liquid to be injected ought to be that of the blood.

But very little being known positively as to the cause of cholera, Bouchut recommends a symptomatic treatment. If the patient be cold, he must be warmed; if he vomit, give the Riviere's potion, gaseous drinks, ice; if he have diarrhœa, give opium, astringents, acids, subnitrate of bismuth, etc. Those who believe that cholera is caused by special bacilli, use antiseptics, microbicides, and everything which is inspired by the parasitic theory of diseases. Ingeniously they believe that, the cholera poison being due to milliards and milliards of comma-bacilli in the intestines, it is necessary to give a few milligrams of the biniodide or bichloride of mercury; a few centigrams of sulphate of copper to destroy the cause, that is the parasite, and save the patient!

Before the invasion of cholera all this may be supported, but after the invasion, when the choleric fermentation has begun with all its alarming symptoms, it seems below the capacity of reasoning minds to pretend to be able to destroy the ferment in such a complex body as the human organism.

But as all diseases at present are zymotic and parasitic, our therapy is simplified and our materia medica limited to a notable degree. There is only one cause—the ferment or the zymosis; and one treatment — the anti-zymotic: mercury, iodine, carburets.

Besides this treatment of symptoms and that also of the intestinal poison producing the cholera, there is a third, which probably is not worth much more, it is that based upon the theory of the choleraic poisoning of the nervous system. When the cholera has progressed, there is noticed such a predomi-

nance of nervous accidents as to induce some to believe the disease to proceed under the influence of the pneumogastric nerve and the spinal medulla. The poisoning is rather cerebro-spinal than gastro-intestinal.

The uncontrollable vomiting is the effect of the pneumogastric trouble; the diarrhœa, the result of the sympathetic disturbance; and the cramps, a spinal phenomenon. The intestinal and gastric flux is but an effect of changes in the nervous supply of the intestines, and the bacilli there found are a consequence rather than a cause, and a *secondary phenomenon.*

The treatment, therefore, is not antiparasitic, but one which, acting on the cerebro-spinal system, can arrest the choleric discharge and its grave consequences. This treatment consists of hypodermic injections of morphine. Bouchut has used them in a young lady affected with cyanosis, cold, sunken eyes, vomiting, diarrhœa and albuminuria. Every evacuation was stopped with the injections, reaction was established and the cure was complete. In another case of sporadic cholera, only one injection given by Dr. Vattier was sufficient to decide the cure. This sort of treatment being rational, and with no risks, is highly recommended by Bouchut in the beginning of the disease; moreover, opium and laudanum when given internally may be vomited or not absorbed, while the injection of morphine is sure in its effects.

Trocin has made several experiments with the inhalations of oxygen in the Saint Mandrier Hospital in Toulon. In a number of cases the effects have been well marked; the pulse became stronger, the skin warmer, and the general aspect improved. These effects did not last long; and Dr. Rochard has not been able to announce any cures by this method of treatment. Further experiments ought to be instituted.

Luton urges hypodermic injections of a solution of a neutral

salt, preferring the ordinary sulphate of sodium. The introduction of this solution in a organism exhausted from the excessive colliquative discharges, has the effect of a sanguineous transfusion. Moreover, a substance of this nature is the best agent for harmonizing the gastro-intestinal functions, causing the peristaltic movements to be antagonized by the anti-peristaltic. It reëstablishes diuresis; and eliminates harmful matter which circulated in the blood.

Much at present is written of Ethiop's mineral as a prophylactic and remedy for cholera; and many are the pretenders for the honor of its first suggestion. But the credit is due to Socrates Cadet, Professor of Physiology in the University of Rome. It has been used since 1837, with splendid results, during the successive epidemics at Rome, Comarco, Paris, in Russia and in Tunis. Wherever used, the cures are said to amount to 70 to 90 % of those attacked. As a prophylactic it is given to adults in daily doses of twenty centigrams with a little sugar. In cases of attack, the dose is a gram and twenty centigrams. If it be vomited, the dose is repeated; and after the first dose sixty centigrams are given hourly until every choleraic symptom has disappeared. A physician asserts that during an epidemic in India, he used this remedy only, and obtained 78 to 82 per cent. of cures, and 96 per cent. in those who had used it as a prophylactic. Innumerable remedies are daily recommended and warranted, but, alas! after a few trials they are relegated to oblivion!

At the first outbreak of the epidemic in Italy, the government made a earnest appeal to physicians to volunteer their work and skill in suppressing the disease and in treating its victims. This appeal had very little effect, for few responded; but through the presidents of the several medical societies of the State, our physicians assured the government that they

were willing to risk their lives as sanitarians and citizens; but, before doing so, they asked for a law making them equal to officers of the army, so that if the government desired them to sacrifice their lives for the public health, it should assure them that their families would not have to suffer without receiving a suitable pension.

The government has not yet taken the matter in consideration, but it will be seriously discussed at the next Medical Congress, to be held in Turin about the end of this month. Our physicians, as to this question, are in the right.

A. LAGORIO, M. D.

Chiavari, Italy, Sept. 11th, 1884.

To the Editors of the CHICAGO MEDICAL JOURNAL AND EXAMINER:

Messrs. Editors: Many theories have been advanced by different authors on the essence of the febrile process, and the opinions of pathologists are yet much divided. The abnormal increase of temperature has been explained by a diminution in the dispersion of the animal heat (Traube); by an increase in the production of this heat; by a diminution in the dispersion, and increase in the production of heat existing contemporarily; and by extraordinary biochemical processes. (Murri).

The skin represents the principal and the most important regulating means of the animal heat, and the functional state of the cutaneous vessels, (on which depends the greater or less flow of blood to the periphery of the body,) is the one which regulates the dispersion of the heat.

All the different modern theories have recognized the alteration of the function of the cutaneous vessels to be the most

important factor in the production of fever; by Traube it was considered as the only and the primary factor capable of directly producing an increase of temperature of the body; other pathologists, differing from Traube, admit it to be only a consequence of the abnormal temperature, therefore of secondary importance only.

In consequence of the uncertainties yet existing in the doctrine of the febrile process, our knowledge of the mechanism of the action of the antipyretics is uncertain. Every hypothesis so far given, explaining how apyrexia is produced artificially by internal remedies, have been reached by analogy, from the physiological properties of remedies, rather than from their action on the febrile process.

The new remedy, kairine, has been largely tried and studied in the clinic of Professor Maragliano in the Pammatone Hospital in Genoa, not only as a febrifuge in general, but also as producing its effects on the cutaneous vessels and circulation. The experiments have been conducted and recorded by the professor's assistant, Gueirolo, a bright student and an accurate observer. The movements of the sanguineous vessels were studied with the pletigmograph of Professor Mosso. The instrument was placed on the forearm and the thermometer in the armpit, for a time varying from four to eight hours. Kairine was given to different patients affected with intermittent fever, croupous pneumonia, and typhoid fever, in doses of a gram every hour for two or three hours, and he was enabled to prove that with the lowering of the febrile temperature with kairine there is a dilatation of the peripheral vessels; that this dilatation precedes for a while the lowering of the temperature. That as the action of the kairine is exhausted, the fever reappears, and there is a constriction of the peripheral vessels; that this constriction precedes for a while the

increase of temperature, and is more rapid and energetic the more rapid is the rise of the temperature. These conclusions tend to prove that the constriction and the dilatation of the vessels are not secondary facts.

Antipirine is another new remedy largely used of late in this clinic as an antipyretic. It comes from Meister Lucius, of Frankfort-on-Main, in the form of prismatic crystals, very soluble in water, and in alcohol, less in ether. Its solution has a neutral reaction. The experiments as to its action on fever were conducted by the assistant, Ampuguani. In a dose of 50 centigr. given at one time it did not have much effect; but in doses of one gram the depression commenced after an hour of its giving, and increased in five to six consecutive hours to 3 degrees. At a dose of 1½ gram the lowering was notable and more rapid. In repeated doses, the antipyretic effects of the alkaloid last six to eighteen hours, and sometimes thirty-six to forty-eight hours. Many phthisical patients remained without fever from one to two days.

There is no doubt that antipirine has marked antipyretic properties; although its action is less energetic than kairine yet it possesses the value to last a longer time.

I take pleasure in communicating for the benefit of your readers, a few observations of Prof. DeRenzi on the comparative effects of some antifebrile remedies used in his clinic. In the fever of phthisis he has used kairine, phenate of soda, salicylate of soda, the salts of quinine, phenic acid, resorcine, and benzoic acid. Of these, he found that kairine has the power of lowering the temperature quicker and stronger; but this lowering is not lasting. The phenate of soda lowers the temperature, as the salicylate of soda, for a longer time; is tolerated better; and does not produce such abundant sweats as kairine; but the greatest diminution of temperature obtained with the

phenate of soda and the salicylate of soda is scarcely half of that obtained with kairine. The antifebrile power is more marked in the phenate than in the salicylate. The phenate is given in capsules containing 20 centigr. of the remedy. The dose of these is 6 to 16 a day. Of the salts of quinine, the arseniate has antipyretic effects superior to the sulphate. Benzoic acid and resorcin produced only slight lowering of temperature; the phenic acid, none.

For the fever of pleurisy the remedies generally used are: kairine, salts of quinine, and the phenate of soda. Kairine does not have much of an action. Better than this are the salts of quinine the arseniates gave the most marked effect. The sodic phenate has been, in this clinic, the most energetic remedy. In a case of high fever, rebellious to other remedies, this salt reduced rapidly the temperature; although kairine had been given at high doses (6 to 8 grams a day), and the sulph. of quinine (1.50 grams internally and ½ gram hypodermically), no change had been noticed. But the phenate of soda given for a few days (1 to 2.50 grams) entirely removed the fever.

Several antifebrile remedies have been urged in the treatment of typhoid fever and febriculæ. The cold pack always reduced the temperatures of 40 deg. centigr. to a normal state. In the febriculæ, quinine and salicylic acid were also used, but with little effect. For in almost all patients with typhoid fever the Professor adopted the carbolic acid spray at the bedside, in solution of 2 per cent., every hour. The efficacy of a carbolized atmosphere on the course of the fever was most evident. In several cases the fever was lowered; in others, it seemed that this method of treatment abbreviated the disease.

In pneumonias of an adnamic type, alcohol is always used. While this remedy supports the patient, it has also shown an

action on the temperature of the body. It was observed that in thirteen patients the temperature was kept lower than before the remedy was given. Quinine and kairine were given to lower rapidly and strongly the very high temperatures. The former, in doses of 2 grams, lowered the temperature, but always limited to about 1 degree; while kairine lowered the temperature 2 to 3 degrees. But this lowering with kairine is always transitory, the apyretic state lasting three to six hours.

For the malarial fevers, quinine, kairine and the electric current were used. The action of quinine has always been the surest and the most constant; kairine stopped definitely a fever of a quotidian type, in one case, in two days of treatment. The Faradic current showed a marked action.

The Faradic and galvanic currents were also used in two cases of symptomatic fever, of a catarrhal broncho-pneumonia, and of a pseudo-leukæmia, but with no effect whatever.

A. LAGORIO, M. D.

CHIAVARI, Italy, August 27, 1884.